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Changes in Interactive Occupation and Social Engagement for People with Dementia

Comparing Household to Traditional Nursing
Home Environments in Ireland

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ABSTRACT

AIM: To understand and evaluate the effect of a change from a Traditional Model Unit (TMU) to a Household Model Unit (HMU) for people with dementia, using social engagement and interactive occupation of residents, staff and relatives as outcome measures, in order to make recommendations for future nursing home development.

Methods: A mixed methods approach was adopted. Residents, staff and relatives were observed using a snapshot observational method for 11 days pre renovation and 14 days post renovation. Pre renovation interviews with staff (n=25) and relatives (n=22) were contrasted with 19 staff and 14 relatives post renovation interviews.

Results: Residents spent more time in the HMU communal living spaces ($p \leq .001$). They were more independently active ($p \leq .001$), more socially engaged ($p \leq .001$) and more involved in interactive occupations ($p \leq .001$).

There were significant increases in the time that staff spent in the room ($p \leq .001$), being socially engaged with residents ($p \leq .001$), and performing their work tasks ($p \leq .001$).

The data set for relatives was smaller and significance was only achieved in an aggregated grouping engaged and interactive category ($p \leq .05$).

Qualitative interview data was used to elaborate on this quantitative data. The interview data was condensed into a multi-component typology of HMU features for future comparison and research.

Conclusion: Adopting an HMU environment created behavioural changes in interactive occupation and social engagement of residents, staff and relatives utilizing the main sitting areas. The physical, operation and social environments which created these changes are described in detail. Recommendations are made for nursing home environments and future research.

CHAPTER 1: THESIS INTENTION, CONTEXT AND OVERVIEW

1.1 INTRODUCTION

Often people with dementia living in nursing homes have little to do, and, although they are living amongst other people, spend very little time in social interaction. They sit with others around the edges of the room with their chairs against the wall, staring into the middle of the room, or falling asleep. They are socially isolated, unoccupied and unengaged.

The intention of this thesis is to understand and evaluate the change of two nursing homes in Ireland as they renovated their Traditional Model Unit (TMU) for people with dementia to a Household Model Unit (HMU). The expressed purpose of these renovations, as stated by the Executive Directors, was to improve the quality of life for the residents with dementia by providing a homelike environment which was more familiar and, therefore, more enabling. At the same time, the Executive Directors were providing training for the staff in a more person centred type of care. Furthermore, they were in the process of changing operational policies to enable this more person centred style of care for the residents. This thesis provides an extensive analysis of all these changes.

Specific outcome measures - interactive occupation and social engagement – are used in this thesis to judge the success or failure of the environmental changes. The term interactive occupation is defined as a purposeful interaction with the environment, such as would happen painting a picture, eating a biscuit or walking across a room to sit in a chair. This category does not include occupations and actions which are not purposeful interactions with the environment.

These non-purposeful interactions include passive occupations, such as sleeping in a chair, non-purposeful agitated behaviours such as repetitive vocalizing and pacing, and, self-stimulatory behaviours such as rocking.

Social engagement is defined by this thesis as a social interaction with one or more persons, but does not include random vocalizations which are not addressed to another person. Social engagement may be verbal or non-verbal. Nonverbal social engagement includes holding the hand of another or stroking their cheek.

This thesis evaluates the whole communal living environment of the nursing homes, both pre and post renovation. The evaluation includes the staff and visitors (relatives) who contribute to the activity within these communal rooms and who interact with the residents. The same quality of life outcome measures - interactive occupation and social engagement – are used to evaluate the effect the HMU environment has had on the residents, staff and relatives, who utilize the communal living spaces of the nursing homes and who contribute to the life lived within this space.

1.1.1 Aim

The purposes or intention of research can be expressed as an aim (Bowling, 2009).

Aim: To understand and evaluate the effect of a change from a Traditional Model Unit (TMU) to a Household Model Unit (HMU) for people with dementia, using the social engagement and interactive occupation of the residents, staff and relatives as outcome measures, in order to make recommendations for future nursing home development.

A causal hypothesis predicts that a phenomenon is a result of another phenomenon that precedes it in time (Bowling, 2009). A research hypothesis was developed from the aim. It is expressed as below.

Hypothesis: The establishment of a Household Model Unit (HMU) communal living space will change the levels of interactive occupation and social engagement for residents, staff and relatives when compared to equivalent Traditional Model Unit (TMU) communal living spaces.

This hypothesis builds on the working assumption of the Executive Directors of the two nursing homes that quality of life for residents with dementia would be improved as a consequence of a more home-like environment. The hypothesis and aim of this research built on these Executive Director assumptions by identifying outcome measures which were clearly defined and measurable and which were practical, important and meaningful to the residents, the staff and the relatives of the residents.

Interactive occupation and social engagement contribute to quality of life and they are outcomes which can be observed and quantified. By using these outcomes, this thesis was able to measure change in the observable behaviour of residents, staff and relatives. Interactive occupation and social engagement define the success or failure of the projects. These outcome measures are discussed in detail in section 1.4 of this chapter.

1.1.2 Objectives

The communal living rooms under investigation in this thesis are defined as complex, multi-component environments (Dagenholtz, Miller, Kane, Cutler, & Kane, 2006; Gitlin, Liebman, & Winter, 2003). This research uses a comprehensive definition of the environment which includes physical design, operational and organizational policies and social milieu. This study defines a

nursing home environment which has more interactive occupation and social engagement as having a better living, working and visiting environment for residents, staff and relatives.

Research objectives are operational tasks that need to be accomplished in order to successfully accomplish the aim of the research (Bowling, 2009). The following objectives describe the strategy and method of this thesis. They are set out below.

1. To use a mixed methods research methodology to incorporate both quantitative and qualitative research methods, in order to obtain an in-depth understanding of the nursing home environments.
2. To develop a quantitative observational research protocol which will distinguish between TMU and HMU communal room environments, with observable interactive occupation and social engagement levels of residents, staff and relatives as outcome measures.
3. To gain a broad and comprehensive insight into the experiences, thoughts and ideas of a wide range of staff and relatives through interview.
4. To ascertain, through staff and relative interview, which components of the HMU environment were the key components producing change.
5. To understand how and why the components of the TMU and the HMU environments generated this difference in interactive occupation and social engagement of the people who use these communal spaces, in order to advance knowledge in this area and to influence policy and practice.

1.2 UNIQUENESS OF THIS RESEARCH

The effects of providing domestic and homelike environments are still relatively poorly researched (Calkins, 2009; Verbeek, et al., 2009a; Verbeek, van Rossum, Zwakhalen, Kempen, &

Hamers, 2009b; Willemse, de Lange, & Pot, 2011). Some recent research has found positive benefits with regard to changing environments of nursing homes. These benefits include a better maintenance of activities of daily living, increased environmental engagement, less negative affect and more family satisfaction (Kane, Lum, Cutler, Degenholtz, & Yu, 2007; Reimer, Slaughter, Donaldson, Currie, & Eliaszie, 2004; Smith, Mathews & Gresham, 2010). However, other research has failed to find positive benefits (McFadden & Lunsman, 2010; Verbeek H. , et al., 2010; Wood, Harris & Snider, 2005; Wood, Womack & Hooper, 2009).

There are two reasons why research comparing traditional nursing homes to home like units has been inconclusive:

1. a lack of consistent definition between different groupings of environments and
2. unrealistic choices of outcome measures (Albert, 2004).

To rectify this situation Albert (2004) proposed the following:

1. break environments into component parts in order to name and define different environmental constellations, and,
2. use a variety of pragmatic outcome measures, such as direct observation, as well as the reports of staff and relatives.

In its assessment of the conversion of two traditional model units (TMU) of two Irish nursing homes into household model units (HMU), this thesis addresses these issues in the following ways:

1. In order to evaluate the communal living areas of the dementia units (a) time was spent getting to know the space and (b) the space is understood in terms of process – how the

residents, staff and relatives make use of the space (Chalfont & Rodiek, 2005). This research project limits its focus to the communal living spaces, and excludes the bedroom, toilet and shower spaces, which are more closely identified with private personal care activities. By evaluating the TMU communal sitting area and then comparing this to the equivalent HMU area, the research became clear, precise and defined.

2. The thesis uses extensive direct observation as well as interviews of staff and relatives to gain an understanding of the amount of change as well as the quality of the change and the impact the change has had on the people within it.

Environments can be disabling and create dysfunction in interactive occupation and social engagement (Law, 1991). This research is unusual in that it does not aim to evaluate any nursing or personal care issues, but focuses firmly on evaluating time use: interactive occupation and social engagement. It presents a protocol for measuring observed interactive occupation and social engagement outcomes, and endeavours to use descriptive qualitative data to provide context and meaning for these observations.

Like most environments, a nursing home environment is a complex environment and the specific impact of features, such as design features, is difficult to analyze due to the large number of variables that must be taken into account (Manthorp, 2011). A broad multidimensional research approach has been taken for this research to accommodate this complexity covering the physical, operation and social components of the environment. Each of these dimensions is discussed in this thesis. However, such a 'real world' complex environment approach does not ascribe environmental change in a simplistic way to one component of the environment, such as the physical size or shape. Instead, the analysis is complex and comprehensive. The benefit of a comprehensive research approach is that the outcome measures are larger and more discernible

and will reflect a real world, rather than an experimental, environment (Gitlin, Liebman, & Winter, 2003).

1.2.1 Expected Contribution to Knowledge

Since the number of people with dementia is increasing and institutional long-term care is more and more organized into small-scale and homelike facilities, more research into the effectiveness of the small scale and home-like residential environments is needed (Verbeek, van Rossum, Zwakhalen, Kempen, & Hamers, 2009b; Willemse, de Lange, & Pot, 2011).

This research project was set up to contribute to this debate and to give a detailed evaluation of the success, or failure, of the two nursing homes in Ireland which made the conversion from TMU to HMU environments. It focuses on the communal living areas of the dementia specific units. The research uses interactive occupation and social engagement as the quality of life units of analysis. It studies two Irish nursing homes in depth, using both quantitative and qualitative data.

1.3 DESCRIPTIONS: PRE AND POST RENOVATION

The introductory section below gives the reader a brief description of the environments of the two Irish nursing home dementia units which were studied by this thesis. The purpose of this brief introduction is to give the reader a foundation upon which understand the environments and the changes that were made in order to understand and put the physical, social and operational environments into context. This brief environmental description in this section places the nursing homes into an international research context, which is described in Chapter 2. More extensive descriptive detail and analysis of the environmental features is located in the succeeding chapters of this thesis.

Both TMU's were characterized by the residents sitting around the walls of the communal living rooms, staring into the centre of the room or falling asleep. Nursing home 1 (NH1) had a much smaller communal living space which usually had fewer people in it than in nursing home 2 (NH2). The television and the radio were often on at the same time. Residents rarely indicated that they were watching the TV or listening to the radio. From time to time a DVD was put on the TV in NH1. The interest was variable and short-lived.

In both TMU's, some residents had breakfast in bed, as not all residents could be assisted to get dressed, showered and escorted to the dining rooms in time for breakfast.

In both TMU's, staff shepherded the residents to the dining room well before the lunch or dinner was brought from the central kitchens. This was a major undertaking for the staff as almost all residents had to be found wherever they were and conducted to the dining room. In NH1, the dining room was some distance away from the TMU, making the shepherding of the residents more difficult. It also meant that the residents had to deal with the noise and visual stimulation of the whole nursing home of more than 80 residents when they were in this dining room.

In both TMU's the staff appeared in the communal sitting room to provide a hot beverage and something to eat mid-morning and also at mid- afternoon. The food and drink were provided from a tea trolley and each resident was served quickly and efficiently in sequence. There was little interaction between the staff and the residents.

When the staff were not engaged in their provision of food and drink, they spent their time in the private- the bedrooms, toilets and bathrooms / showers spaces of the TMU's where they undertook personal care tasks with the residents.

The staff always appeared to be friendly and helpful towards the residents. However, the overriding impression was of staff busyness.

The HMU's looked and operated very differently. Both had a unit kitchen in an open plan sitting and dining room area. This allowed food to be served whenever each resident arrived. As a consequence, residents did not all come at once, but drifted in when they were up and dressed. They were then given their breakfast by a staff member, known as a homemaker, who was permanently assigned to the kitchen and open plan area during the day. The residents sat at dining chairs situated close to the kitchen. As the room was open plan, they sat for a time at the tables and then made their own way to sit in the sofas or chairs. As well as choosing when they got up, they chose which tables they went to and who they sat next to, as well as choosing which chair to sit in.

There was a similar effect as residents prepared for the midday or evening meal. As the whole room was open plan, they saw the preparations being made – the setting of the tables, the provision of hot food – and they made their own way to the tables without the need of being shepherded by the staff.

Residents more often joined in the craft work groups of the recreational therapists in the HMU's than in the TMU's. This was because the residents did not need to leave the open plan communal space, but just to move over to the tables where the crafts and activities groups were being held. This also meant that others – residents, staff and visitors – came to look or comment on what was being done, creating spontaneous social interaction. Similarly, there were birthdays attended by relatives which were focused around one or two tables. These attracted other residents to join in and participate. Residents picked up books to look at or helped with household, which had not been seen at all in the TMU's.

The busyness of the homemaker seemed to attract more residents to stay in the communal rooms. The homemaker was able to supply appropriate food and drink at tea breaks for the residents. This meant that other staff were no longer required for the refreshment breaks. Often residents would drift to the tables for their cup of tea and snacks. Sometimes some residents would choose to remain in the sofas and chairs and they were served there. The service was more flexible, personal and engaging for the HMU residents.

NH1 pre renovation was small and when most of the residents were in the sitting area, it was cramped and difficult to manoeuvre, especially if there were some residents who required the very large specialist chairs in the room and a resident needed to use a walking frame or had to be hoisted. The biggest renovation change for both nursing homes was the removal of interior walls to provide an open plan eating and sitting area, with the addition of a unit kitchen in this space. In this open plan space, the residents and their relatives were more likely to remain in these communal spaces, rather than visiting in resident's bedroom.

The sitting room and dining room spaces were larger in the NH2 TMU and were further enlarged by the removal of walls between the two rooms. There was good visual access to the whole of the room. Residents were able to take themselves from the sofas to the tables. The activity and craft groups were held at the tables. It was easier to encourage the residents to join in an activity or craft group as they did not need to leave the main sitting room.

Having more space made it easier to give physical assistance to the residents or to bring in the large specialist comfort chairs to which some residents were confined. As the tables were integrated into the room, residents and relatives tended to make use of them even outside of meal and break times.

The physical renovations created the heart of the households. The furniture and curtains of both HMU's were domestic in style in order to create a welcoming and familiar space in which people felt comfortable sharing a table, a cup of coffee or something to eat. The main rooms were open plan in order that people had visual feedback about who was in the room, what they were doing, and what was going on. These attributes made it easier for residents to make choices about where they wanted to go, what they wanted to do and if they wanted to join in or speak to someone. Whilst these physical transformations were essential to the development of the changes, the operational policies - the commitment to person centred care training and resident choice, along with creating an additional homemaker staff – were essential to the success of the endeavour. This thesis will explore these issues.

Feedback is critical concerning how the physical, operational and social environments affect those with dementia living in nursing home care. The environment has an important impact on staff, residents and relatives. This is important considering the costs - financial, personal and emotional - being admitted to a nursing home entails. This research will add to the debate concerning which types of physical environments best suit those with dementia and those involved in their care and support.

1.4 OUTCOME MEASURES: CONTEXT AND RATIONALE

Outcome measures need to be simple, easy to understand and directly related (proximal) to an improvement in the experience of the residents. At the same time, a whole environment approach must take into account all persons present within the room: residents, staff and relatives. In addition, outcome measures need to be both relevant and important, as opposed to superficial and irrelevant. Occupation and social engagement are important and meaningful for people with dementia in residential care.

It is difficult to choose outcome measures which are specific and defined (Banerjee, et al., 2005). For example, the visiting times of relatives are contingent on transport arrangements, the previous relationship they had with their family member, and current family and work commitments. Therefore, using relative visitation rates would be a poor outcome measure of nursing home environmental change. Similarly, staff absenteeism, stress levels and morale are poor environmental outcome measures as they are dependent on child care issues, being a low paid worker, cultural characteristics and so on. Using resident cognition as an outcome measure is poorly advised, as there is a relentless deterioration due to the disease process.

In general, nursing home comparative research has not demonstrated a consistent pattern of improvement in the cognitive function and functional abilities of residents (Maas, Swanson, & Buckwalter, 1994). When nursing home research has been successful, it has measured specific behavioural responses to the environments being compared, such as increased activity and interaction levels, and, decreased wandering and catastrophic reactions (Maas, Swanson, & Buckwalter, 1994; Swanson, Maas, & Buckwalter, 1994).

1.5 THESIS CONTEXT

There is a tendency to define the homelike environments only by their physical features, as these properties are the most obvious. However, the nursing home environment also includes its social (cultural) and operational (organizational) properties (Calkins, 2005; Calkins, 2009; Moos & Lemke, 1996; Verbeek, van Rossum, Zwakhalen, Kempen, & Hamers, 2009b; Wahl & Weisman, 2003). In terms of creating a successful residential environment, the social environment and operational policies are probably more important than the physical design itself (Werezak & Morgan, 2003).

There is no physical setting that is not also a social and cultural setting. Indeed its use, function, and consequences are as much a result of these definitions and purposes as they are of its actual physical properties – perhaps even more so (Proshansky, 1976, p. 308).

Chalfont and Rodiek (2005, p. 341) describe the need to move from the idea of ‘intervention’ research, which is superficial and simplistic, to more in-depth and comprehensive research by ‘immersion’. For example, the three year ethnographic study of McAllister and Silverman (1999) was able to trace the development of a community of people with dementia in a person centred nursing home and compare this with the non-development of community in a more institutional setting. The in-depth knowledge obtained allowed a comprehensive comparison between a traditional institutional nursing home and a person centred nursing home in the effects it had on resident interaction, social bonding and community formation. They report that the sense of social community did not develop on its own. They found that where there was the participation of residents in daily tasks and activities, this (a) built interdependence, (b) created the social organization of community and (c) gave a sense of being part of a community. A social community, or household, environment for residents with dementia requires not only a physical environment that facilitates social interaction and participation in the activities of daily living, but also requires flexible and person-centred staff roles and a therapeutic operational approach which promotes resident choice and independence (Brooker, Woolley, & Lee, 2007; Calkins, 2001; Gitlin, et al., 2009); Koren, 2010; Harmer & Orrell, 2008; Zimmerman, et al., 2003).

This thesis is an intensive investigation of the transformation of two nursing homes from traditional models of residential care to household models of residential care. It studies them by using both quantitative and qualitative methods of inquiry over a one year period. The findings of this extensive investigation augment the findings of other research. These research findings,

presented and described in Chapter 2, are grouped together in order to build up definitions, or typologies, of both the TMU environment and the contrasting HMU environment. This grouping of components of the TMU and HMU environments, based on contemporary research, creates an a priori foundation for the typology definition presented by this thesis. Having a clear definition of both environments will enable future comparative research, as well as informing best practice (Swanson, Maas, & Buckwalter, 1994).

1.6 THESIS OVERVIEW

This chapter has given an introduction to the two Irish nursing homes and the aims and objectives. Furthermore, this chapter briefly describes the important values which directed the way that the research was conducted.

Chapter 2 provides an extensive introduction to the philosophy of physical, social and operational environmental care for people with dementia, with particular focus on the work of M. Powell Lawton, whose ground-breaking work underpins current thought in the care of people with dementia. The chapter discusses the meaningfulness of place and home and how personal occupation and social engagement creates this meaningfulness. These theories and ideas are foundational to the thesis.

Chapter 2 is also a literature review of nursing home care. The culture of nursing homes and the styles of nursing homes are examined in detail. It describes the development of traditional nursing home care and defines and discusses Special Care Units (SCU's) and Small House Units (SHU's).

Chapter 3 details how the HMU differs from a TMU. These essential details are given as a 'typology' description of an HMU, divided into the physical, social and operational components of

the HMU environment. It provides a brief discussion of one of the first and most influential HMU in North America.

Chapter 4 presents the rationale and justification for using a mixed methods methodology. It explores the issues behind using a quantitative observational strategy and provides a detailed description of the method that was used. The chapter then explores the qualitative component of this mixed methods study and presents the methodology used to interview staff and relatives of the two nursing homes.

Chapter 5 gives the quantitative data results and the corresponding statistical analysis of this data which indicates that the household model changes created an environment where residents were more occupied and socially engaged. The statistical effect on the behaviours of the staff and relatives are also discussed.

Chapter 6 presents the results of the TMU interviews of management, staff and relatives. Photographs bring clarity to the descriptions of people's real world experience of the environment.

Chapter 7 gives the parallel HMU interviews with corresponding photographs and descriptions. These interviews show how the HMU environments differed from the TMU environments and give an understanding of the mechanisms which were responsible for the statistical findings in interactive occupation and social engagement as described in Chapter 5.

Chapter 8 brings together and analyzes the data from the previous three chapters. Issues are presented, developed and discussed, with particular reference to the impact the environmental changes have had on interactive occupation and social engagement. The essential components of both the TMU and the HMU environments are discussed in depth.

Chapter 9 applies the knowledge gained to policy and practice and makes recommendations for future developments. The future development of the observational assessment tool is discussed.

Chapter 10 is an overview of the research and its methodology. It revisits the aim and hypothesis of this study, identifies the limitations of the research and makes recommendations for future research.

CHAPTER 2: LITERATURE REVIEW

2.1 DEMENTIA AND ENVIRONMENTAL THEORIES

2.1.1 Introduction

Ecology is the study of natural systems which are interdependent upon one another (Lawton & Nahemow, 1973). A social ecological approach 'attempts to understand the impact of the environment from the perspective of the individual' (Moos, 1976, p. 28). In this context, social ecological research describes the amounts, types and variability of the behaviour of people, how they use the physical and social environment, and the antecedents and consequences of such behaviour (Van Haitsma, Lawton, Kleban, Klapper, & Corn, 1997). It presupposes that the 'physical and social environments are inextricably related and must be studied together' (Moos, 1976, p. 29). The intention of a social ecology approach in research is 'to increase knowledge about how a person can control their environment and exercise choice' (Moos, 1976, p. 31). The purpose of a social ecological approach is to learn 'how to actively and positively stimulate and challenge the individual' (Moos, 1976, p. 30) to facilitate personal and social well-being. This is of particular relevance to dementia research.

Lawton saw the aging process as one of continual adaptation to the environment and to the changes in one's own functioning, abilities and health (Lawton & Nahemow, 1973). His inclusive models describe physical environments as being inseparable from their psychosocial, situational and organizational contexts. His ecological theories of adaptive behaviour and ageing have had a profound influence on the study of the elderly (Calkins, 2003a).

2.1.2 Environmental Docility Theory

Lawton's Environmental Docility Hypothesis examines disabling environments from the viewpoint of the individual. This hypothesis states that the more a person is disabled the more they are encumbered by their immediate environmental situation (Lawton, 1974). As the competence of a person decreases, greater attention and effort must be directed to overcome environmental challenges. An aspect of the environment may not create problems in earlier life but may be an insurmountable problem for later life (Lawton, 1974). In other words, the person becomes more susceptible, or more vulnerable, to the environmental context. They must spend more time and energy dealing with the environment, compared to someone who is young, fit and healthy. At its most basic, this theory validates prosthetic solutions for the environment, which compensate for personal loss through specific environmental supports. Examples of these are hand rails, wheelchair access and signage for visually impaired people. Environmental prosthetics have a disproportionately strong and positive effect on impaired older people's behaviour (Lawton, 1990).

Over the last two decades much of the research directed towards people with dementia in residential care has been a search for simple reductionist cause and effect prosthetic solutions, which has influenced nursing home design. The published research has tended to focus on these prosthetic solutions, such as improvements to way finding, without analyzing these prosthetic solutions within their social and operational contexts; when, in fact, it is these contexts which the major determinants of independence and quality of life (Calkins, 2001).

As an example, a major challenge for nursing home environments are the frequently encountered communal sitting rooms where residents sit around the walls staring into space or sleeping for most of the day. Prosthetic interventions, such as way finding strategies or home like

features have little or no impact on the critical lack of stimulation which defines the lives of many people with dementia (Lawton, 1974).

In addition to any physical disabilities and limitations they may have, people with dementia become less able to interact successfully with their physical and social environment as their cognitive abilities decrease (Brawley, 2005; Perrin, 1997a). They have problems with self-initiation, apathy and depression. Consequently, they become increasingly dependent on the staff within their environment for interaction, stimulation and socialization needs (Holthe, Thorsen, & Josephsson, 2007; Perrin, 1997a; Wood, Harris, & Snider, 2005).

As a consequence, any assessment of their environment which is really meaningful must move from the superficial and prosthetic to a deeper awareness of the impact the whole environment has on their experience. Research should look beyond a focus on changes that assist only a few with a specific task, such as being able to find their way to their bedroom or toilet. Evaluation should include not just the residents, but the staff and relatives as well, as they are the critical active components of a residential care environment (Cutler & Kane, 2009; Verbeek, van Rossum, Zwakhalen, Kempen, & Hamers, 2009b; Werezak & Morgan, 2003).

2.1.3 Competence Press Hypothesis

Lawton and Nahemow (1973) used Murray's idea (1938) that negative consequences occur when the environment exerts excessive or deficient stimulation (press) over and above that which a person can cope. Their Competence Press Model (Lawton & Nahemow, 1973) is an ecological model of ageing and adaptation which focuses on how an environment can create disability. If the environment is too difficult for the person to cope with, or is too lacking in stimulation, it results in surrender and a functional loss of competence for an elderly person. Press is environmental

stimulation in the broadest sense. The qualities of this press include the type, meaning, predictability, prominence and unusualness of the stimulus (Calkins, 2002).

Individuals of high competence have a wide range of capacities and ways of interacting with the environment. In other words, they have a great deal of flexibility. However, if the person has a low level of competence, as in frailty or cognitive impairment, he or she has a narrower range of flexibility (Competence Press Model). The individual must expend energy just to stay within their area of competence (Environment Docility Theory). This means that the individual is less likely to be able to overcome the environmental demands (or will surrender much more quickly to environmental under stimulation). This threat to competency affects the person's well-being and makes maladaptive behaviours more likely (such as emotional overreactions or withdrawal). An example might be those individuals with early dementia who are competent within their own familiar home environments, but become stressed and disoriented in the busy environments outside their homes, which impairs their ability to cross the street or drive round a roundabout safely. On the other hand, providing a cognitively impaired person with a stimulating cognitive 'just right' challenge has been shown to increase engagement and pleasure (Gitlin, et al., 2009) as they are working within their level of competence.

Every individual has capabilities which will respond to the demands (press) in an environment. Calkins (2002) gives the example of a person with dementia not being able to feed themselves independently in a noisy, crowded, visually stimulating canteen type environment, but if given a solitary plate of food in a quiet intimate setting, they are able to do so. The model is also seen to be transactive – the effects of the person-environment interactions work both ways. For example, a person with dementia in a nursing home engaging with others using a smile and laughter is likely

to encourage positive reactions back, while the agitated and noisy behaviour of another will see them confined to their bedroom in social isolation.

The theory is not prescriptive about which environment presses will stimulate or disable, and is not able to explicitly define competence, threat, need, or press other than in general terms (Lawton, 1977). The model assumes a level of environmental press which permits maximum performance for each individual's levels of physical and cognitive ability. Small amounts of increased demand elicit a positive stimulatory effect and adaptive behaviour, whilst substantial deviation from the individual's competence, either too much or too little, will be disabling and elicit maladaptive behaviour (Lawton, 1977).

The Competence Press Hypothesis includes the physical, social and organizational milieu. This theory underpins the expectation that physical, operational and social environmental changes will impact on the ability of the residents to engage and interact.

The next section provides a discussion of further themes and issues which underpin this thesis. It describes how others have understood human needs of people with dementia. This leads on to a discussion of what gives life meaning for people with dementia. The next section concludes with a discussion of the two specific human needs which are pertinent to this thesis.

2.2 MEANING AND DEMENTIA: OCCUPATION, SOCIAL ENGAGEMENT AND PLACE

2.2.1 Lawton's Ideas of Human Needs

Lawton describes a number of needs of the resident in residential care. They are: autonomy, privacy, dignity, social interaction, meaningful activity, individuality, enjoyment versus aversive stimulation, safety and security, spiritual well-being, clarity of structure, and functional

competence (Lawton, 2001a). The environment in which a person lives will have an effect on all of these needs for people with dementia. This thesis will focus on just two of these needs. The first is the need of human beings for meaningful occupations which are interesting, stimulating and worthwhile. The second is the need for relationship and social interaction.

Lawton (2001a) recommended evaluating environmental features by using specific behavioural outcomes. This thesis evaluates the environmental change of two Irish nursing homes, by using interactive occupation and social engagement (Chapter 5) as outcome measures of how the whole environment affects the personal competence of the residents. The following sections explore the idea that interactive occupation and social engagement provide (a) personal meaning for people, (b) validate who one is, and, (c) define one's sense of home.

2.2.2 The Importance of Meaning for People with Dementia

Frankl (2000) used his personal experience as a Holocaust survivor to describe the importance of having meaning in life. He proposed that people find meaning for their lives by having something to live for, something meaningful to do or someone to love.

For a person with dementia, living in residential care creates difficult and distressing emotions which strike at the inner core of identity. This state includes a sense of loss, isolation, uncertainty, fear and worthlessness (Clare, Rowlands, Bruce, Surr, & Downs, 2008). This makes it incumbent upon society to explore if, and how, environments can make life more meaningful with spontaneous personal enjoyment (Davis, Byers, Nay, & Koch, 2009) and create a life worth living (Zingmark, Sandman, & Norberg, 2002) for residents with dementia.

To deliver a 'good life', the selfhood or personhood of people with dementia must be maintained (Zingmark, Sandman, & Norberg, 2002). Interacting with the environment, and the

people in that environment, gives feedback about: *who am I, am I part of this group of people, what is going on and am I doing the right thing / do I fit in?* For people with dementia, this essential feedback is fragmented and discoloured by disorientation and confusion. It is reduced further if the environment in which they are living is barren of interaction and engagement.

People with dementia living in nursing homes construct meaning in their lives. Familiar roles found in daily occupations and in social relationships (Davis, Byers, Nay, & Koch, 2009; Zingmark, Sandman, & Norberg, 2002) give a sense of self, even in the severe stages of dementia. This sense of self connects the past self, and their past life roles, to the present (Davis, Byers, Nay, & Koch, 2009) and gives a sense of dignity.

For people with dementia, alienation from one's sense of self, from one's sense of home and security, from others and from an ultimate source of meaning creates suffering (Norberg, 2001). As the dementia progresses, there is a fragmentation of the personality and an inability to be in control as one once was. There is a growing inability to understand what is going on, to communicate and to maintain relationships with people. There is an increasing difficulty in doing things which were taken for granted, like making a cup of tea or getting dressed. There are difficulties with lack of self-initiation, being unable to motivate and organize oneself to get up and do things. Declining memory, inability to organize one's thoughts and poor concentration are hallmarks of the condition. These deficits make the person with dementia more and more reliant on the environment and their carers, to assist with meaningful occupations, such as drying the dishes, cleaning the kitchen, working in the garden, cooking or watching a favourite television program.

Aimless wandering, pacing, agitation and desperation to go home are symptoms of feeling anxious, unfamiliar and not in control. They describe a search for familiarity, security, relationship

and identity (Norberg, 2001). These behaviours express a desire to connect with who one is, where one is and what one should be doing in order to feel settled, secure, comfortable and happy. These important issues can be positively affected by an environment which allows people with dementia to have meaningful and purposeful things to do and which encourages social interaction. To create this environment requires organizational commitment and the facilitation of appropriate staff interactions. To do so, the human environment must relate to residents as individuals rather than the next task to be accomplished.

2.2.3 The Meaning of Home

The most important meaningful space for most people is the home. People locate themselves geographically in relation to where their home is. In addition, they carry a sense of themselves from the past into the future anchored to this idea of home which helps to preserve their self-identity (Chaudhury & Rowles, 2005).

Unfortunately, nursing home environments deprive the person of a familiar environment, with the articles and associations of a lifetime, and the sense of being in charge in one's own home. Nursing homes deprive the person with dementia of their sense of being in control, of making their own decisions and of socializing with people whom they know and who share a past history with them. Instead, the institution forms an unfamiliar barrier. They foster dependency and take away a sense of control and personhood for the resident. Residents are not allowed to enter and exit at will, which is most clearly exemplified by the staff and keys on locked dementia wards. A grown person is no longer responsible for being self-sufficient and making choices. Instead meals, bed times, social contacts and activities are organized for them as if they were small children. The individual is no longer in control. Staff control the environment.

There are two distinct messages being delivered when individuals are forced to live in residential environments, such as nursing homes. One is that a person must be sick, unwell and unable to cope because they are there. The second is that residents need to be supervised and controlled (Caouette, 2005). It is not just the residents who are affected by this perception. It also affects the opinions and behaviours of staff and relatives. These ideas contaminate social interactions and operational policies.

People with dementia frequently request “I want to go home” (Frank, 2005). This may happen even when they are in the home they have known all their lives. Some attempt to leave their place of safety in order to find the home that they are seeking, which leads them into danger. Whilst a sense of home is understood as a tangible place in time and space, it also contains a sense of self-hood, or, whom we are (Frank, 2005). The concept of home, for most people, represents love, security and belonging. The phrase ‘I want to go home’ is imperative for people with dementia and therefore deserves our close attention (Fukui, Okada, Nishimoto, & Nelson-Becker, 2011). It is heard frequently. It crosses cultures and languages. It is an attempt to communicate something important from people with dementia, even from some who are usually mute (Frank, 2005). It is a plea for safety, security, control and relationship and is a response to feeling uncomfortable, sad, disorientated, frustrated or fearful (Frank, 2005, Fukui, Okada, Nishimoto, & Nelson-Becker, 2011).

Fundamental to this thesis are the concepts articulated by Chaudhury and Rowles (2005) which define an environment as being transformed into something meaningful through the personal interaction and socialization that occur within environments over time (Chaudhury & Rowles, 2005). Although the physical design can make our house distinctive, it does not make it a home.

A home is made by activities and interactions with others: what we do in the house, how we use the rooms and spaces, and, how we interact with others in this space.

Most people use the concept of home likeness or homeliness to refer to the physical design and soft furnishings of a building. Robertson and Fitzgerald (2010) go beyond this superficial analysis and describe homeliness as: (a) meaningful relationships, (b) a focus on the individuality of residents, (c) a sense of history for the people and the place, and (d) a kinship network.

A home is not made by the physical design of the building's interiors or exteriors, although they will shape the types of interactions that occur. A sense of place and a sense of home are defined by human activity and interaction (Moore, 1999). Relationships are central in creating a meaningful homelike environment (Robinson, Reid, & Cooke, 2010).

2.2.4 Activity, Occupation, Meaning and Place

The work of Lawton is a major influence on the investigation of how the environment impacts people with dementia (Calkins, 2003a). Up until recently his work has been interpreted simplistically. So, for example, much attention in the literature has been directed toward easily identified and problematic behaviours, such as wandering. To this end, prosthetic interventions have been applied in an attempt to modify or control behaviour or improve competence. However, this does not meet the real needs of people with dementia living in residential accommodation. The problem of why a person is incessantly wandering up and down the halls, desperate to get out and 'go home', is not addressed by simplistic solutions (Norberg, 2001) such as wandering paths, memory boxes and orientation strategy interventions, which dominated the research literature over the last two decades. As previously discussed, being able to find one's own bedroom does not create a life worth living, when the rest of the day is spent sitting and staring into space or sleeping. It makes little difference if the resident can find their way to the

dining room, but, instead they are caught up and shepherded with everyone else into the dining room and the room is so noisy and busy that they can't concentrate and have to be fed.

Torrington (2007) recommends creating activity focused spaces. She promotes the idea of conceptualizing and defining residential care as a setting for activity.

This thesis takes as its major premise that a main indicator of nursing home quality is the extent to which residents engage in meaningful occupations (Kolanowski, Buettner, Litaker, & Yu, 2006) and meaningful social engagement (Snyder, 2006). This is not a new concept. Hasselkus (1998) labelled communal areas as 'occupational spaces', defining them by the interactive occupation present in the room. In addition, she defines these spaces as 'occupational places' when the people using the space find personal meaning in the activities their occupations and interactions.

As Moore (2004, p. 318) states, the success or failure of a place ultimately depends on how it facilitates or constrains true human experiences. Moore calls this 'environmental fit'. Moore defines place as 'a milieu comprising a physical setting within which activities occur – which can be thought to be carried out by people of various social groups' (Moore, 2004, p. 298). This definition contains a social and an active component. In addition he acknowledges that a place will have an organizational context which impacts on how space is used in reality.

Moore (1999) describes how staff influence environments. When staff arrive with food the whole room comes alive as they complete the task of circulating to each resident in the room with food and drink. In a later work, Moore (2004) describes how staff, without any consultation with residents, develop unspoken rules which effectively govern how places are used. These rules form the 'hidden program of a place' and define which actions are acceptable and which are not.

Moore (2004) described the purpose of these rules as being to manage the environment and the organizational priorities as understood by the staff. These unspoken rules then constrained the day attendees with dementia. The unspoken rules constrained where the attendees could go and what they were allowed to do. He stated that these hidden programs even take precedence over the official stated purpose of a place.

Moore gives an example of how the day attendees were grouped in one room, with consequent over-crowding. Available vacant rooms were not used. The unspoken rule adopted by the staff was to keep everyone in sight in order to minimize potential danger and to stop wandering. He described these patterns of behaviours as:

A set of relationships between activity and the physical setting that forwards a set of place purposes. These patterns are structured by a set of place rules that ensure the effective use of a place; therefore, place rules also are goal-oriented. Such place rules summarize the observable consistencies between activity and setting and form the essential building blocks in interpreting the hidden program of a place (Moore, 2004, p. 316).

The hidden program of a place is pervasive, is not openly defined (is hidden) and is the outcome of the staff perceived priorities, such as keeping everyone in sight. For Moore (2004), understanding these rules and bringing them into the open can assist the organization to return to the organization's true values and purpose. Although an architect by background, he was convinced that the impact of organizational change was far more important than redesigning the physical space when creating a person focused setting.

For Cresswell (2004), place is a complex concept, meaningful in different ways to different people. In the nursing home communal living space there are three separate groups of people who make use of the communal living space: residents, staff and relatives. Each group creates meaning through what they are doing, how they interact and how they feel they belong

(Cresswell, 2004, p. 44). They approach the same space from very different perspectives. The next section explores the social environment in relation to resident care.

We distinguish appropriate place behaviour in a church and know that this is not the place to use football stadium behaviour. However, in environments such as nursing homes, there is often a dissonance between the social world of the residents and the social world of the staff (Moore, 1999). Moore describes how this dissonance excludes social intimacy and therapeutic interaction.

2.2.5 Dementia and Interactive Occupation and Social Engagement

Kitwood (1997) defines the social giving of love and care towards a person with dementia as comprising: comfort, attachment, social experiences, genuine occupation and identity (Kitwood, 1997; Post, 2006). People with dementia continue to interact and engage in a social world until the last stages of the disease. This indicates that they are able to evaluate, interpret and derive meaning from social situations (Sabat, 2006, p. 299).

The most disabling effects of dementia are the threats to personhood and the person's sense of self (Downs & Clare, 2006; Kitwood & Bredin, 1992). A person's sense of meaning and sense of oneself is a social construction. 'We are who we are through our social interactions' (Hughes, Louw, & Sabat, 2006, p. 23) and this applies to people with dementia living in residential care (Snyder, 2006). A person is a person through others (Sabat, 2006). This sense of identity, the sense of 'self', can be 'maintained by the efforts of those around' (Aquilina & Hughes, 2006, p. 147). For Kitwood (1997), the important task in dementia care is to 'generate interactions of a really positive kind', with the second task being to 'enable the interactions to continue' (p. 96). In this way, the personhood of the individual is maintained, even whilst their cognition continues to deteriorate.

Unfortunately, the behaviour of a person with dementia becomes increasingly seen as being defective by others. This transfers to the person with dementia and they begin to see themselves as deficient and lose their sense of self-worth (Sabat, 2006). When the carer does not attend to the meaning behind a behaviour or communication, this creates a depersonalized interaction. This is damaging not only to the person with dementia, but to their carer as well.

The person with dementia is at risk of being disempowered, depersonalized or infantilized. This pervasive reaction to people with dementia is very common and has been termed a 'malignant' social psychology (Kitwood, 1997, pp. 45-49). While often not done consciously, harm is done by the omissions and inadequate actions without adequate thought from carers.

Keeping positive social interaction alive is the key psychological task in dementia care (Kitwood & Bredin, 1992). Unfortunately, the majority of interactions in most residential care for people with dementia are infrequent, impoverished and relatively ineffective, unless they are accompanied by actual physical care. Kitwood (1997, p. 86) describes these infrequent non-care based interactions as being very stereotyped in nature and as lasting less than two minutes in duration.

Direct one-to-one human contact and socializing is the key and most important stimulation for people with dementia in nursing homes. If the social environment supports the experiences of residents in meaningful time use, this sustains their identity, functional abilities, emotional well-being and sense of belonging (Wood, Harris, & Snider, 2005). Unfortunately this support tends to be deficient in nursing homes, with residents themselves, staff and relatives all identifying deficiencies in stimulating daytime activities and opportunities to make social contact (Orrell, et al., 2008) and a lack of initiatives to address boredom and inactivity (Ballard, et al., 2001).

2.2.6 The Importance of Occupation

Occupation is everything that a person does during the course of a day, including activities of daily living, work, and leisure (Sifton, 2000). By nature people are purposeful and active, always 'doing' something (Sifton, 2000). People with dementia want to do things to express themselves, to communicate, feel pleasure and involvement, and thereby have a sense of connection, belonging, and identity (Vernooij-Dassen, 2007; Sifton, 2000). Family carers are concerned when they see their loved ones without occupation, staring into empty space, or, see their loved one agitated and unable to settle to a task.

Quality of life and well-being flow from interaction with people and the environment and 'shaped by the vicissitudes of daily living' (Harvey, 1993, p. 27). Calkins (2003a, p. 78) states that a full activity schedule 'is considered one of the critical hallmarks of a good dementia program'. Unfortunately, observational research shows that people with dementia in residential care spend most of their time doing nothing and interacting with no one (Bowie & Mountain, 1993; Brooker, 1995; Morgan-Brown, Ormerod, Newton, & Manley, 2011).

Active occupations benefit nursing home residents with dementia by improving sleep / wake pattern disturbance, and by reducing restlessness, irritability and agitation. Active occupation and social engagement improve psychological well-being by giving a sense of involvement, self-worth and identity, control, social connection, belonging, satisfaction, relaxation, pleasure, and interest (Brooker, Woolley, & Lee, 2007; Kolanowski, Buettner, Litaker, & Yu, 2006; Marshall & Hutchinson, 2001; Phinney, Chaudhury, & O'Connor, 2007; Schreiner, Yamamoto, & Shiotani, 2005). Nursing home residents with dementia want to be meaningfully engaged and to contribute to their community (Moyle, Murfield, & Griffiths, 2011). Activities that are understood by the person with

dementia as being meaningful work, receive attention, create a positive attitude and sustain engagement (Cohen-Mansfield et al., 2010a).

2.2.7 The Need for Interactive Occupation and Social Engagement

Passive behaviours, apathy and lack of self-initiation are all common ways of describing a common feature of dementia. These passive behaviours affect 90% of those in nursing homes (Kolanowski, Litaker, & Buettner, 2005). They are characterized by fewer displays of human emotions, withdrawal from interactions with others, withdrawal from environmental interactions, and a decrease in activity levels (Kolanowski, Litaker, & Buettner, 2005).

Perrin (1997a) hypothesizes that for a person with severe dementia, the environment has contracted to envelop him or her, almost as if s/he were in a bubble, perhaps three to four feet in diameter. Anything outside this bubble is perceived in a distorted and muffled way, including conversation. The person with dementia becomes less and less able to engage within their environment. As the person with dementia becomes less able, the onus is more and more on the people within their environment to reach out into this bubble and engage with them.

Involvement is important. Through involvement, residents experience a sense of home, of pleasure, enjoyment, satisfaction, connection, belonging, personal identity, autonomy and control (Phinney, Chaudhury, & O'Connor, 2007; Van't Leven & Jonsson, 2002). And even when the actual memory of an activity has gone for people with dementia, an emotional memory residue remains of having had a good time (Sifton, 2000) lifting mood and decreasing agitated behaviours. For these reasons, it is important to know how the environment, which includes the human and social environment, supports or constrains occupational performance and the maintenance of everyday activities for people with decreasing cognition (Sifton, 2000; Van't Leven & Jonsson, 2002).

Not all occupational and social interventions are universally effective. Success depends on being able to engage the abilities and interests of participants (Cohen-Mansfield, Marx, Thein, & Dakheel-Ali, 2011; Cohen-Mansfield, et al., 2010c; Cohen-Mansfield et al., 2010d; Kolanowski, Litaker, & Buettner, 2005; Voelkl, Fries, & Galecki, 1995). If the activity has a social component, it is more engaging for people with dementia (Dobbs, et al., 2005; Zimmerman et al., 2005a; Cohen-Mansfield et al., 2010b; Harmer & Orrell, 2008; Litwin & Shiovitz-Ezra, 2006). Staff encouragement and family involvement make it more likely that people with dementia will become involved in an activity (Dobbs et al., 2005). The working and social environment, along with the physical design of a nursing home, impacts on the social interactions of residents with dementia. Important environmental components include staff work patterns and roles, philosophy of care, resident group size, home like environment and ambiance, position of furniture, the placement of the hub of staff activity and the sightlines of the residents when in sitting (Campo & Chaudhury, 2011). In their study, Cioffi, Fleming, Wilkes, Sinfield, & Le Miere (2007) found that an improved home like environment, which included a unit kitchenette and greater personalization of bedroom spaces, enhanced the quality of life for residents, created a better work environment for staff, and provided a better visiting environment for visitors.

2.2.8 Time Use Research in Residential Care

There are different methods of obtaining daily life observational data for people with dementia living in residential care. This section describes a variety of published observational research of residential care environments. Unfortunately, none of this research focuses on the staff and relatives, who are the essential mechanisms of the social and occupational interactions, as discussed previously. This means that important and useful information was not reported about the important impact staff and relatives have on residents' behaviour.

An American study of 154 residents with dementia in a nursing home (Van Haitsma, Lawton, Kleban, Klapper, & Corn, 1997) used a hand-held event recorder to evaluate residents with dementia in special care units in a nursing home. Their aim was to provide a complex evaluation of the residents including their location, their behaviour, their physical position and if they were alone or who they were with. They differentiated between what they termed 'null behavior' and 'gazing with interest'. Appropriately, they chose to code the person as being alone, even if they were sitting close to another person, unless there was an observable interaction with another person. They successfully argued that proximity alone does not mean that residents with dementia are interacting. They studied 'streams of behaviour', which record behaviour continuously over 10 minute segments. This was done for three assessment periods per day for four days for each resident. The researcher followed the resident around the units, except into private spaces. They found that residents spent 63% of their time in the communal multipurpose room. Another social space, which was at the end of the unit, was used only 1% of the time. Other time was spent at the nurses' station (15%) and in their bedroom (14%). All other spaces were used only 9% of the time.

The residents spent 40% of their time in active participation (even if it was only interested gaze), 24% of their time in passive behaviours (such as sleeping or null behaviour), and 13% of their time in social behaviour. The researchers made particular mention of the amount of time residents spent on their own, even when carrying out various activities (83% of the time without interpersonal interaction). They recommended that future research should target specific times of day and specific locations within the nursing home units, in order to understand the behaviours that are likely to occur at specific times and in particular places.

They were able to verify two premises which were first proposed by Lawton. The first is the Principle of Spatial Centrality (Lawton, 1970), where maximum social interaction happens wherever there is a high level of human traffic. This has also been verified by others (Cutler & Kane, 2009; Danes, 2002; Innes, Kelly, & Dincarslan, 2011; McAllister & Silverman, 1999). The second of Lawton's principles (Lawton, 1970) they verified was that residents with dementia participate mentally and emotionally by simply watching the behaviour of others. This is similar to the concept of 'doing and being in the presence of doing' of Van't Leven and Jonsson (2002).

Schreiner, Yamamoto, & Shiotani (2005) evaluated the behaviour and facial expressions of 35 residents at two special care units in Japan to compare differences in emotional experience between ordinary time and structured recreation time. Data on observed behaviour, as well as emotional expression, was collected over 64 hours with residents being observed and recorded on a hand held observational instrument for five minutes in each hour slot. They concluded that residents spent most of their time alone, doing nothing and with little social interaction. Over 60% of the time was solitary, and most of their time their faces did not register any emotion.

The Norwegian study of Holthe, Thorsen & Josephsson (2007) used an ethnographic approach to evaluate life in a specially designed unit. Eight residents were observed for 45 hours over eight weeks. Interviews were used to deepen the understanding of the observed behaviour. The residents identified the importance of activities for their own mental and physical health. Despite this, the observational data demonstrated that these residents remained dependent on staff interventions to engage in daily occupations.

The lived life for residents with dementia in residential care is defined by little social and emotional engagement or interactive occupation. Any engagement is likely to be passive, rather than active. Most interaction and engagement is likely to be a direct result of staff intervention, or

as a consequence of being situated where there is a 'hub' of activity, which facilitates spontaneous interactions.

2.3 PEOPLE WITH DEMENTIA IN NURSING HOMES

2.3.1 Introduction

Nursing homes care for people with dementia. However, the reputation of nursing homes is poor and they are often seen as a last resort (Kane, Lum, Cutler, Degenholtz, & Yu, 2007; Lundh, Sandberg, & Nolan, 2000). The World Health Organization, in conjunction with the International Association of Gerontology and Geriatrics, established a task force in response to what they perceived to be an urgent need to improve long-term care on a worldwide basis (Tolson, Morley, Rolland, & Vellas, 2011). The report stressed the need to improve dignity and respect within nursing home provision, including providing meaningful activities.

There are many reasons for the generally poor reputation of nursing homes. On admission, the person loses independence and control. Residents can spend their day in isolation and inactivity. There is loneliness, boredom, helplessness and lack of meaning (Kane, Lum, Cutler, Degenholtz, & Yu, 2007). Death and frailty are common occurrences after admission to a nursing home and residents who are most dissatisfied with their daily occupations are most at risk of death (Mozley, 2001). Admission procedures are highly charged for both the person themselves and their families (Butcher, Holkup, Park, & Maas, 2001; Tilse, 2000). Social services and health authorities often see their task as keeping people in the community and preventing nursing home admission (Sandberg, Lundh, & Nolan, 2001) because of its negative reputation and the financial implications for person and state.

Until recently, there has been a lack of research which addresses the environmental needs of people with dementia for long term care. This research is imperative considering the enormous financial and social burden entailed in caring for people with dementia in nursing homes (de Rooij, Luijkx, Declercq, & Schols, 2011; Luengo-Fernandez, Leal & Gray, 2010, O'Malley & Croucher, 2005). Small group homes supported individual living and more homelike environments are now thought to be the appropriate choices for people with physical disability, enduring mental health problems or learning difficulties (Rabig, 2009). This brings into question whether the traditional institutional type of nursing homes are the best environments for older people and, especially, those who are suffering with dementia. If they are not, what other type of environment would be more suitable?

2.3.2 Background: Social Cost of Dementia Care

During the next few decades there will be an unprecedented worldwide increase in older people. The reasons for this are: (a) there was an increase in fertility rates after the Second World War, (b) people are living longer as standards of living and medical interventions have improved and (c) as education and income levels have improved, there has been a corresponding decline in fertility of the post war populations (Kinsella & He, 2009). It is projected that by 2018 the world population of people over 65 will outnumber those under 5 years of age for the first time in world history (Kinsella & He, 2009). The world's population aged 80 and over is projected to increase by 233% between 2008 and 2040, compared to 160% for those aged 65 and over, whilst only increasing 33% for the total population of all ages (Kinsella & He, 2009). The ageing of the population represents 'a social phenomenon without historical precedent' (Kinsella & He, 2009, p. 2).

The incidence of dementia increases dramatically with age, so with an ageing world, there is a sharp increase in people with dementia requiring support. This has enormous consequences for medical and social care. In 2010, it was estimated that there were 35.6 million people living with dementia worldwide with associated costs of US\$604 billion. The worldwide population of people with dementia will triple to 115.4 million in 2050 (Alzheimer's Disease International, 2010) with corresponding costs, escalating to the region of US\$1.9 trillion.

In the UK, the average 2008 cost of dementia care to the economy was £27,647 per person per year, which is more than the average annual UK salary of £24,647 (Luengo-Fernandez, Leal, & Gray, 2010). The contrasting costs for cancer were £5,999, for stroke £4,770 and for heart disease £3,455 (Luengo-Fernandez, Leal, & Gray, 2010). The total social, health, informal care costs and productivity losses when added together were £23 billion for 2008 (Luengo-Fernandez, Leal, & Gray, 2010). In Ireland, the projected growth in dementia will more than double from 42,441 in 2011 to over 100,000 in 2036 (O'Shea, 2007). The service provision for people with dementia in Ireland is less developed than in the UK, with the total cost of dementia care being €400 million in 2006. This breaks down to an individual cost of just under €10,000 (O'Shea, 2007).

2.3.3 Background: Nursing Home Costs

In England, the weekly costs for residential care were £566 per week for people with dementia (Laing, 2008). 37% of people with dementia in the UK are estimated to be in long-term care, which is estimated to cost in excess of £9 billion per year (Luengo-Fernandez, Leal, & Gray, 2010). Based on the 2002 figures, present U.K. expenditure on just long term care services for this single disease category is extraordinarily high at 0.60% of Gross Domestic Product (GDP). This is set to rise to somewhere in the region of 0.82% to 0.96% of GDP in 2031 (Comas-Herrera et al.,

2011) with the number of people with cognitive impairment in care homes increasing by 93% (Comas-Herrera et al., 2011).

Since the care of dementia in nursing homes is expensive and expected to grow, it is important for this to be evaluated and studied to establish value for money and standards of care. There is a shortage of good quality research which identifies crucial environmental components and their effects (Calkins, 2009; O'Malley & Croucher, 2005). The empirical research concerning which environments provide a better quality of life for people with dementia is limited in quantity and is difficult to evaluate and compare due to the complexity of analyzing the interplay between staff, relatives and relatives, complex environments and approach to programming (Gilster, Accorinti, & Dalessandro, 2002; O'Malley & Croucher, 2005). For example, the extensive survey of Dagenholtz, Miller, Kane, Cuter, & Kane (2006) which involved 40 research interviewers in 40 nursing facilities, found that 'analysis of the effects of individual features is difficult because many features are potentially confounded with one another' (Dagenholtz, Miller, Kane, Cuter, & Kane, 2006, p. 5). While they were able to associate decreased function with poorer living environments, they were unable to say if this was a consequence of the poorer environments or a consequence of residents with most disability being admitted to the poorest environment units.

In this thesis, the research was limited to an in-depth analysis of two Irish nursing homes which were investigated over time, as they changed their dementia units from a traditional style of environment to a more homelike 'household' environment. Although small in scale, this 'before' and 'after' condition allows a more focused 'real world' comparison of environments and their effects on the people within them.

The shared purpose of both nursing home design renovations in this thesis study was to create new environments which would support and encourage new 'person centred' provisions of

care. Both nursing homes had to take into account the investment of money, time, and disruption. The Executive Directors were able to evaluate the return on capital employed and the increased staffing costs (Chapter 6). The staff and relatives contribute to the value for money debate by evaluating the effectiveness and benefits of the changes, based on their investment in the care and support of the residents (Chapters 6 & 7).

The next sections of this introduction will give further background information regarding specialist environments for people with dementia and will introduce the themes which are addressed in the rest of this thesis. This Chapter discusses Special Care Units, the Small House Model and the Household Model of residential care. Prominent examples of research articles are presented, which give insight into the problems inherent in doing research within these specialist environments. This chapter introduces major themes of this thesis: physical design components, culture change and person centred care, and organizational enrichment.

2.3.4 The Evolution of Nursing Home Provision

Background Development

Nursing home design grew out of the poor houses and state hospitals of the eighteenth and nineteenth centuries (Morley, 2010; Rabig, 2009). In hospitals, beds were lined up in straight lines with the privacy of a curtain between beds. The nurses' station stood in an authoritative position in order to survey all persons under their care. Ward rounds enabled the doctors and other professionals to progress up and down the ward as a potent symbol of authority. In the workhouses or poor houses, people were crammed into overcrowded rooms. Food was ladled out in communal rooms as a sign of authority, with gratitude and subservience expected. Activities and communications were monitored, families separated, and relationships destroyed. The

environments discouraged relatives by the intimidating environment, lack of privacy, and social disgrace. Contact inevitably deteriorated.

These traditional style environments were organized so as to facilitate the staff and the jobs they had to do. The concern was not the resident, but the staff member and how to give them control and make them more efficient in their care. People with dementia in residential care environments experienced loneliness, boredom, inactivity, helplessness, and lack of meaning (Bowie & Mountain, 1993; Holthe, Thorsen, & Josephsson, 2007; Kane, Lum, Cutler, Degenholtz, & Yu, 2007; Norbergh, Hellzen, Sandman, & Asplund, 2002). These patronizing and institutional views of care influenced nursing home architectural design, which often resembled hospitals more than a home (Maas, Swanson, & Buckwalter, 1994). Residents were contained in large impersonal rooms, where they spent most of the day idly staring into space. The prominent nursing station gave the nursing staff a commanding overview of the residence. Internal hallways were long and wide, with doors opening off them on each side, to facilitate the medication, breakfast and linen trolleys as they trundled down the halls. Staff woke, dressed and fed residents on a rota basis. Overcrowded multi-occupancy rooms were devoid of privacy. Residents were 'shepherded' into communal canteen style dining rooms by the staff and then 'shepherded' back again. Group activity sessions were impersonal, patronizing, and unconnected to a person's previous interests and lifestyle. The staff approach was, at best, benevolent and paternalistic, with the assumption that the caregiver knows what is best for the resident.

In the past, while nursing homes were generally good at providing physical care and meeting all the physical needs of the residents, the psychosocial needs of the residents were not well met (Holtkamp, Kerkstra, Ribbe, van Campen, & Ooms, 2000; Maas, Swanson, & Buckwalter, 1994; Rockwell, 2012). Psychological and emotional abuse, such as neglect, depriving residents of

choice, deprivation of social experiences and berating or ignoring or threatening deprivation, were prevalent in many nursing homes (Maas, Specht, Buckwalter, Gittler, & Bechen, 2008a).

Current Themes in Nursing Home Environment Provision

New styles of nursing home provision strive to be more resident centred and more familiar in design and in routines. The focus from staff efficiency and effective task routines to offering resident choice, daily flexibility and establishing close relationships is a hallmark of the new style nursing homes (Cohen-Mansfield & Parpura-Gill, 2008). In her review of the literature, Calkins (2009) found studies which correlated a small unit size to the maintenance of personal care skills, a greater quality of life, less sadness, and the reduced use of restraints. Pekkarinen, et al., (2006) argue the larger residential care units have more time pressure and stress for the staff, and that this affects resident quality of life.

In contrast, Boustani, et al., (2005) found that the size and type of building had no bearing on the expressions of agitation and other behavioural symptoms in nursing homes for dementia. Perrin (1997b) concluded that the physical environment has considerably less impact on people with dementia than is commonly imagined. She found that even in the most institutional of environments there were examples of positive psychosocial milieus for residents created by the staff. The culture of an environment can be transformed by changes in the attitudes of staff and positive leadership from management (Chalfont & Hafford-Letchfield, 2010). Conversely, even an ideal physical environment cannot make up for poor or deficient staff (Gold, 1991; Mace, 1991).

The debate about the physical attributes and size of nursing home units has become prominent in nursing home research, to the detriment to other environmental issues, such as organizational issues and the quality of care. It is important to look more deeply beyond the purely physical descriptions of the environment. The extensive study of Zimmerman et al.

(2005a), which covered a wide range of assisted living and residential accommodation, found that the factors which correlated to a better quality of life, were not the size of the units or the type or design of the building. The correlations for a better quality of life were (Zimmerman et al., 2005a):

(a) having a specialist worker approach;

(b) having relevant staff training; and,

(c) having an encouraging attitude towards activity participation (Zimmerman et al., 2005a).

Given time, training and positive attitudes an environment which provides a better quality of life for residents, as well as improved job satisfaction for workers, irrespective of their physical design. Similarly, staff who initiate activity programs and social engagement improve quality of life even in the most poor of physical environments.

Relatives are much less concerned about the design of a nursing home than they are about how staff treat their family member (Gilster, Accorinti, & Dalessandro, 2002). Care staff feel better about their jobs if they have a positive attitude to their work. This positive work attitude is, in turn, affected by training in person centred care, as well as the operational approaches to care found in the organization (Moyle, Murfield, & Griffiths, 2011).

Lawton's Three Environmental Functions

Lawton (1989) attributes three separate functions to the environment:

(a) maintenance;

(b) stimulation; and,

(c) support.

These three functions of the environment will underscore the concepts and ideas of this thesis. Wahl and Weisman (2003, p. 620) describe these three functions as below:

'The environmental function of maintenance highlights the important role of constancy and predictability of the environment. The environmental function of stimulation typically means the departure from the usual in the environment, the appearance of a novel array of stimuli and their effects on behavior. The environmental function of support can typically be seen in the environment's potential to compensate for reduced or lost competencies. Examples of the maintenance function of the environment in terms of private home environments and planned environments would be cognitive – affective feelings related to these places "maintaining" the self and continuity in later life. The stimulation function of these environments may be seen, for instance, in their role in eliciting new social or other leisure behaviors. The support function of the home environment or planned environments typically is reflected in issues such as barrier-freeness and accessibility.'

The environment in a typical Traditional Model Unit (TMU) sitting room is *supportive* in that it is barrier free, safe and contained. However, the typical TMU environment does not assist in the *maintenance* of the self. For example, residents are not facilitated to carry out domestic home tasks which are familiar to them and part of their identity. The TMU environments are not *stimulating* for the residents, as staff are rarely present in the room and have not been given the time or the training in how to stimulate and enliven environments. Unfortunately, people with dementia in TMU residential care often spend most of their days unoccupied and without stimulation or interaction. They spend a good part of their day sitting and staring into space or sleeping (Bowie & Mountain, 1993; Morgan-Brown, Ormerod, Newton, & Manley, 2011; Norbergh, Hellzen, Sandman, & Asplund, 2002; Schreiner, Yamamoto & Shiotani, 2005).

Different environments have been created in response to the negative features of TMU's. Three non-traditional style models of nursing homes, the Special Care Unit (SCU), the small house (SHU), and the household (HMU) residential care, will be discussed in some depth in later sections.

When a nursing home changes its commitment from an institutional and task based model of care to a focus on the essential personhood of each resident, and a provision of care which is modelled on family relationships, this is called a commitment to 'culture change'. The concept of culture change is introduced, defined and discussed. It will be explored more fully in subsequent sections.

The Challenges of Nursing Home Research

This section of Chapter 2 describes published research which has explored different nursing home environments. This body of research shows the complexity of nursing home evaluation and many inconsistent outcomes.

One of the problems of nursing home research in the past has been that researchers often group environments together for quantitative purposes based on physical characteristics, such as the numbers of residents or the design characteristics of the properties, classifying them as if they were all one 'monolithic' entity (Teresi, Holmes, & Ory, 2000, p.420). This thesis argues against the viewpoint of architectural determinism (Keen, 1989) where architectural design is thought to be the major determinant of human behaviour. Gifford (2007) speaks of 'environmental numbness', where people become so familiar with an environment that it no longer creates a behavioural or emotional response. This thesis argues for a deeper understanding and evaluation of the physical environment. This thesis argues that the environment is composed of organizational and social aspects. It is only if these work together with the physical design that ensures residential care is 'home like'. This thesis argues that certain types of communal environments are more likely to increase social engagement and interactive occupation. Put another way, the purpose of a homelike environment is to create opportunities for engagement and interaction.

Exclusive concentration on physical features has produced tentative and mixed results, as the research typically focuses on a select few features to try and explain outcomes. For example, installing a kitchen may be very useful and important; however, if the operational policies and the staff do not promote its use with residents, the feature lies idle and has no effect on residents (Calkins, 2005). If the research on kitchens in residential care includes a non-functioning kitchen unit this would unacceptably skew the outcomes of other kitchens which are being used.

Some examples of research in residential care environments are given below. These research examples show that understanding residential care environments is complex. As well as providing an informational background, the discussion of the physical design research reports brings operational and social themes which will be discussed later in the thesis.

2.4 SMALL HOUSE UNIT (SHU) AND GROUP LIVING RESEARCH

The term 'small house' is often used as a generic term for smaller, group home type environments. These more homelike deinstitutionalized models (Rabig, 2009) have archetypal features of a private home, such as a kitchen, dining room, living room and laundry area. Normal daily life and participation are emphasized (Verbeek et al., 2009a). The rationale for small house and group living environments is the belief smaller group living environments can offer residents opportunity for personal choice, individualized care, privacy and community (Rabig, 2009). These environments are seen as a more caring and more humane than the traditional nursing homes, which are described as alienating and disempowering for residents.

Small-scale living facilities can be differentiated from traditional nursing homes on physical, social and organizational characteristics (Verbeek et al., 2009a). Physically these units often look like a domestic bungalow and contain between five and nine residents (Verbeek et al., 2009a). Some of these small houses are sited on their own within the wider community, while others are

grouped together for administration and organizational convenience (Willemse, de Lange, & Pot, 2011). The social environment is based on a family group and residents and staff share in ordinary household daily life routines, such as meal preparation and domestic activities (te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008b; Verbeek et al., 2009a; Verbeek, van Rossum, Zwakhalen, Kempen, & Hamers, 2009b). The objective is to improve quality of life by creating an intimate and familiar family style environment which stresses social relationship and person centred care (Verbeek, et al., 2010). Residents can lead a normal life and be managed with just one or two nursing staff with a fixed allocation to the unit, rather than the numbers of staff required by larger traditional nursing home units (te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008; Verbeek, Zwakhalen, van Rossum, & Kempen, 2012). Smaller individual nursing homes are more likely to be able to provide care in a flexible and personal manner (Lucas, et al., 2007). Having autonomy in the day-to-day structure of the work allows staff to feel they are able to spend more time with residents, gives a greater sense of control and that they are able to be more responsible and more confident, with a reduction in emotional exhaustion and burnout (te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008a; Verbeek, Zwakhalen, van Rossum, & Kempen, 2012). However, in a SMU, there is staff pressure in having to make difficult decisions without the backup of a wider team and having to cope with the impact of behavioural problems on other residents in a smaller space, as well as the emotional burden of a more intimate care for residents who are deteriorating (Verbeek, Zwakhalen, van Rossum, & Kempen, 2012). This is mediated by greater support from other staff workers (te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008a). While a small house model does not increase the frequency and length of visits by relatives compared to those visiting TMU's, they report less burden and a greater level of satisfaction with nursing staff (Verbeek et al., 2010). At the same time, the emotional consequences of admitting a

relative to nursing home care still remain for the relatives (te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008a).

When interviewed, residents, staff and family carers thought the following components made small-scale living facilities 'home-like' (Verbeek, Zwakhalen, van Rossum, & Kempen, 2012):

- Physical design as an archetypal house: kitchen, living room, separate bedrooms, own entrance; open spaces; personal furnishings
- Social and organizational aspects: respect for privacy; participation in domestic activities; staff flexibly undertaking tasks which were integrated into the daily life of the unit; involvement of family caregivers in the unit's everyday life.

Although there has been limited systematic research of these units, the concept is growing, with different countries using different names for the concept. Verbeek, van Rossum, Zwakhalen, Kempen, & Hamers (2009b) identify 11 different concepts in 11 different countries. The best known of these are the CADE units (Australia), Cantou (France), Care Housing (Scotland), Domus (UK), Green Houses (US), Group Living (Sweden), Residential Groups (Germany), Small-Scale Living (Netherlands / Belgium), and Special Care Facility / SCF (Canada). Whilst there are no set standards or identities, they all provide nursing home care in residential units based on smaller more homelike environments, with a more intimate, less task oriented, type of nursing care.

One of the earliest and most important studies on group living for people with dementia was done by Annerstedt, Gustafson & Nilsson (1993) in Sweden. This research matched residents with dementia (n=28) in three group living apartments with 28 residents in three traditional long-term wards (containing 50 or more residents) according to age, gender, diagnosis and level of dementia. The group living units were defined as having specially trained and supervised staff, a

culture of normalization of everyday life (with the abandonment of hospital routines) and family type interactions. The organic brain syndromes scale (OBS) (Gustafson, Lindgren, & Westling, 1985) was used to compare both types of environments at baseline and then after six and 12 months. This scale picks up on disorientation (time, place, situation and current knowledge) and confusion (defined as: dyspraxia, spatial disorientation, hallucinations, syncope, lack of vitality, dysphasia, paranoia, aggressiveness, depression, anxiousness, variations in symptoms and restlessness).

The study found that the residents in group living showed less restlessness, dyspraxia, dysphasia, depression, and anxiety at both reassessment points. The authors (Annerstedt et al., 1993) were clear that it was not only the physical, but also the organizational and social environments, which created the changes that they recorded. The three important change components were:

(a) Continuous stimulation and prompting by staff,

(b) Smaller more familiar settings which reduced confusion and exposure to overcrowding and stress

(c) Staff had specific training to encourage activities, which consequently maintained perceptual and procedural skills.

However, the research study authors note that after 12 months the natural deterioration of the disease processes meant that the effect of the group living became less apparent.

The authors do not discuss whether the merging of the results between the experimental and the control groups at the 12 month assessment was due to staff motivation and interest declining

as the new environment and way of working became more familiar and more routine. Similarly, the authors do not discuss whether the small number of residents in the SMU led to staff over-familiarity and a lack of stimulation. This experiment would tell us more if they had been able to observe levels of staff interaction and stimulation at all measurement points and correlate this with the outcome measures of the residents.

The authors fail to describe whether or not it was the researchers or the staff who provided the ratings upon which the outcomes were based. There was a lack of consistency and a great fluctuation in the findings between the different measuring periods and between the experimental and control groups. This decreases confidence in the final findings. Outcome consistency and reliability would be enhanced if there was a direct measurement of behaviours over an extended time period, rather than relying on a one-off rating of opinion by staff or researchers.

The larger Dutch study of te Boekhorst, Depla, de Lange, Pot, & Eefsting (2009) compared residents on admission to either 19 group living bungalows or to seven traditional nursing home wards. They conducted extensive testing for quality of life, cognition, behaviour, socialization and daily living activities. Their outcomes found that the group living residents needed less assistance with Activities of Daily Living (ADL) and that they had more social engagement. In addition, they had a greater sense of aesthetics and had more to do during the day. However, there were no differences in the majority of quality of life scales, in cognitive testing results and in behavioural problems such as depression.

te Boekhorst, Depla, de Lange, Pot, & Eefsting (2009) found there was a bias in admission, with people with dementia with higher cognitive and functional status being admitted to the group homes compared to the traditional units. The study by Annerstedt, Gustafson & Nilsson

(1993) above also found that residents in the group homes were more likely to have been supported in the community, including attendance at day centres, while those admitted to the traditional wards had been institutionalized longer. These are important findings, as differences in admissions provide an alternative explanation for the differential in the group living and traditional residential care group abilities and rates of decline. This would be a productive area for further research.

Unfortunately, the research of te Boekhorst, Depla, de Lange, Pot, & Eefsting (2009) did not utilize direct observation of the residents and, instead, relied on proxy reports of relatives and staff. Their research depended on relatives accurately remembering and correctly gauging the person's quality of life and level of function at admission. This was then compared with equivalent staff reports six months after admission to the units. The authors identify this procedure as being a limitation to their study. The authors conclude that there was little to distinguish between residing in traditional nursing homes from residing in group homes.

Researchers observing staff in Green Houses (Sharkey, Hudak, Horn, James, & Howes, 2011) observed care staff spending much more time socially engaged with each resident (2.4 hours) than in traditional nursing units (2.0 hours). More importantly, they spent more time talking and engaging with residents when they were not conducting personal care with them (25 minutes versus 5 minutes per resident per day). They attribute this to the more homelike environment and a culture of person centred care. The smaller domestic and more intimate design of the building enabled staff to socially engage with the residents undertaking tasks such as doing the laundry or preparing the meal. The staff were enabled by being universal workers who were self-managing and flexible, were able to undertake all tasks, and, who established their own priorities because the tasks were the familiar tasks of any domestic home – cooking, cleaning, laundry,

personal care and activities. Staff interactions with residents were modelled on the relationships which would be present in a large family grouping, rather than being based on nursing care and duties to be completed.

Distinguishing between the effects of the social / professional environment (philosophy of care, staff skills, and good management practices) and the physical environment is very complex (Fleming, 2010; Reimer, Slaughter, Donaldson, Currie, & Eliaszie, 2004). In the literature review by Fleming and Purandare (2010), it was not possible to disentangle the effects of the size of a unit from other attributes, such as homeliness. For example, with regard to maintaining residents' ADL (Activities of Daily Living) skills, it is very difficult, if not impossible, to distinguish precisely between the effect of the homelike physical environment and the effect of greater encouragement of the staff. However, a consensus is emerging that larger units have more time pressure for staff and a poorer quality of life for the residents, whilst smaller units make it more likely that staff will develop better quality relationships with supervisors and residents (Joseph, 2006).

Other studies have shown that smaller, more relationship centred and more homelike environments are beneficial for staff. Staff satisfaction is higher in homelike group living units while the symptoms of burnout – emotional exhaustion, a decreased sense of personal accomplishment, and, depersonalization - are reduced (te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008a). Job satisfaction and job motivation were found to correlate with improved interactions and shared occupations with residents in small group living (Alfredson & Annerstedt, 1994).

However, there are some disadvantages to living in smaller units (McFadden & Lunsman, 2010; Verbeek, van Rossum, Zwakhalen, Kempen, & Hamers, 2009b). Smaller units have less

physical space. Larger units have the benefit of economy of scale to keep costs down, while smaller environments have higher staff costs per resident (Willemse, de Lange, & Pot, 2011). A larger staff group gives additional flexibility for activity programming (Onishi, et al., 2006; Zimmerman & Sloane, 1999). With the smaller number of staff, the quality of the care is highly dependent on the personality and strengths of the small number of caregivers and how their personalities mesh with each individual resident (Robinson, Reid, & Cooke, 2010). Kuremyr, Kihlgren, Norberg, Astrom, & Karlsson (1994) found that working with a small number of residents with dementia requires a high level of emotional commitment, which has the potential to be overwhelming and stressful.

There is still very limited research on people with dementia residing in group living and small house model units and the limited research has failed to come up with clear and consistent benefits (Verbeek, van Rossum, Zwakhalen, Kempen, & Hamers, 2009b). More research is required. Defining the environment more precisely is important, as are creating new methods and outcome measures which will give more concrete results. The research must include aspects of the wider environment, (such as the way that the units are organised), as well as the social milieu, the activity levels and the dependency levels of the residents, particularly as the numbers in each unit are so small. In addition, research needs to ascertain the effects not just on the residents, but also on staff and relatives (Verbeek, van Rossum, Zwakhalen, Kempen, & Hamers, 2009b) in order to understand how these populations are affected and, in turn, how these populations then interact and engage differently with the residents.

2.5 SPECIAL CARE UNITS (SCU) RESEARCH

In America, a debate ensued regarding whether people with dementia should be segregated into discrete units or whether they should remain integrated in standard nursing homes (Coons,

1991a; Coons, 1991b). It was known that nursing home residents without dementia were often critical and uncomfortable with the behaviours of people with dementia living amongst them. In addition, it was recognized that residents with dementia had special needs, creating the necessity of locking nursing home doors to prevent exiting. Over time, there was a gradual movement towards separating residents with dementia from residents with physical care needs from residents with dementia (Coons, 1991a). The units caring for people with dementia became known as Special Care Units (SCU). Lawton (2001) defined broad criteria for an SCU as being:

- geographically distinct area
- secured or locked
- special environmental features suited to people with dementia
- specialized staff training
- special admission and discharge criteria

SCU's were most often situated on the grounds of large for-profit organizations where additional fees could be charged. In America in 1987, 7.6% of nursing homes offered an SCU, whilst in 1996 this had risen to 19% (Lawton, 2001a). Although, in theory, they provided a specialist physical environment with specialist programming specifically suited to people with dementia, they were often no more than an area of a nursing home complex which was locked.

Unfortunately, there has not been an accepted definition of an SCU (Coons, 1991a, Maslow & Ory, 2001). Nor has there been an agreed definition of what constitutes the best environment for residents. This has presented a challenge to researchers who want to ascertain if this innovation is effective in improving quality of life for people living in nursing homes. Nursing home research has been difficult because of this lack of precision and lack of distinctiveness.

In order to obtain a greater number of research participants in order to give a greater chance of statistically significant outcome differentials, there has been a tendency to group SCU's together. This means that SCU's with innovative physical, cultural and operational environments and SCU's with institutional organizational environments are all treated as if they were identical in their effects on residents' quality of life or other outcome measures. This has made research of SCU effectiveness inconclusive (Lawton, 2001a).

Much of the initial research centred on what promised to be easiest to define and investigate - the physical environment. There were many articles about how the physical environment helped or hindered people with dementia, which engendered a search for easy and quick fix solutions. Designers subscribed to the idea of architectural determinism (Keen, 1989) or environmental determinism (Calkins, 2001), where architectural design was thought to be a major determinant of human behaviour. It is now generally accepted that architectural design alone is unable to solve the major problems of residential care environments (Calkins, 2001). For example, design that focused on wayfinding, disorientation, visual cueing and auditory overstimulation was useful, but did little to alter the inherent loneliness, boredom, and institutionalization of the residential units (Calkins, 2001).

The next section presents some research which has explored SCU environments. It explores some of the research complications and conclusions.

2.5.1 SCU Research Using Simple Classification

In the large classification survey of Dagenholtz, Miller, Kane, Cuter, & Kane (2006) 1988 resident rooms in 131 units were rated and categorized as to their supportive and stimulating features. SCU's did not perform better than the TMU's. In a noteworthy finding, and contrary to their expectations, they found the category which contained the largest number of SCU's also had

the poorest life-enriching features and amenities, along with high levels of noxious stimuli and clutter. Some SCU environments were performing very poorly. The outcomes of this research reinforce the need to define environments with some precision, rather than grouping environments according to a self-defined label. As clutter and noxious stimuli are likely to be a consequence of poor management and organizational policies, this research implies that organizational and cultural factors, as well as grouping and physical factors, must be taken into account when evaluating nursing home environments.

2.5.2 Researching SCU Facility Size

In a large study of 2,078 residents in 193 facilities in four American states (Zimmerman, et al., 2003), proxy information was obtained from administrators. Counter-intuitively, they found that the smaller units provided fewer scheduled social and recreational activities. To cloud the picture, they found that the units which provided the most activities, irrespective of size, had the most social engagement of their residents. As a limitation to their study, the authors clarified that the small units may have more social contact when staff were undertaking personal care activities with residents, but their research study was not able to verify this. They conclude that being in a small unit means that there is a risk of less activity happening because there are fewer staff. In other words, activities and social engagement depend on size, organizational commitment and organizational policy, and will not happen simply because a small more intimate environment is provided. The authors concluded that capturing data on activity levels of residential units was complex and that researchers cannot use a simplistic descriptor of environments, such as size, when comparing environments. Researchers must devote time to understand and analyze the operational issues to understand how things are done in these environments, if any reliable conclusions are to be drawn.

Boustani et al. (2005) were unable to find an association between the size and the type of nursing home physical design with behavioural symptoms, such as agitation. Wood, Harris and Snider (2005) used a 10 minute interval recording procedure using a computer assisted hand held observational tool to measure resident behaviour, affect and activity situations in an SCU in America. They found residents to be disengaged, inactive and without positive emotional expression. They concluded that having a homelike physical environment was insufficient to create engagement and they recommended further investigation as to how environments can be transformed into 'alive' occupational spaces.

Using the same procedure, Wood, Womack and Hooper (2009) collected data from two special care units for people with Alzheimer's disease. Observations were made of 14 residents across four 12 hour days. They found a poverty of staff-resident interactions and a lack of resident engagement in the environments. They recommended the involvement of professionals, such as occupational therapists, as educators, mentors and consultants to enhance the effectiveness of routine activity situations and everyday occupations. Similarly, a large study of 56 Dutch dementia SCU's found that size is not the key feature of decreasing resident levels of apathy but the quality of care, in terms of staff time spent on care activities, did make a positive difference (Zuidema, de Jonghe, Verhey, & Koopmans, 2010).

2.5.3 Use of Global Assessments of Well-Being

In Canada, Reimer, Slaughter, Donaldson, Currie, & Eliaszie (2004) compared 62 residents in six 10 bed self-contained bungalows (Special Care Facilities – SCF's) with 123 residents in 24 long-term care centres in the same city. The SCF's were defined by the authors as providing home like qualities, meaningful activity and privacy. They emphasized physical and emotional comfort, as well as resident choice, with a hypothesis that a prosthetic physical environment and a supportive

social environment with increased social contact would reduce excess disability and improve quality of life. The authors described the variation in the TMU environments as a major limitation to their study. Some TMU's had ward style long corridors, nursing stations, and large noisy dining rooms, whereas others were more homelike and domestic in appearance.

In this study (Reimer, Slaughter, Donaldson, Currie, & Eliaszie, 2004), there was an intensive rating of subjects, using a battery of six scales at baseline, and repeating 3, 6, 9, and 12 months later. The intention was to gain both subjective and objective data. The assessments used were:

- the Brief Cognitive Rating Scale (BCRS) (Reisberg & Ferris, 1988) which covers cognitive function,
- the functional Assessment Staging (FAST) (Reisberg, 1988) which looks at complex social and occupational tasks, personal care, and loss of speech, locomotion and consciousness,
- the Cohen-Mansfield Agitation Inventory (CMAI) (Cohen-Mansfield, Marx, & Rosenthal, 1989) which rates observable behaviours,
- the Pleasant Events Scale (Logsdon & Teri, 1997) which rates availability, frequency and apparent enjoyment of pleasant events,
- the Multidimensional Observations Scale of Elderly Subjects (MOSES) (Helmes, Csapo, & Short, 1987) used to rate function, mood and withdrawn behaviour and
- the Apparent Affect Rating Scale (AARS) (Lawton, Van Haitsma & Klapper, 1996) which rates five mood states.

The control groups were matched to the experimental group on the Global Deterioration Scale (GDS) (Reisberg et al., 1982), which describes seven stages of behavioural indicators of cognitive decline and the care needs for each stage. The AARS required observation from trained assessors

and the BCRS required interaction with the assessors. All other assessments were completed by asking staff or family members for their observations of the resident over the previous week.

In keeping with the known cognitive decline of people with dementia, in the Reimer, Slaughter, Donaldson, Currie, & Eliaszie (2004) study, all groups declined in function due to cognitive deterioration. There were only three areas in which the decline was significantly lessened for the residents in the homelike SCF's: activities of daily living; more sustained interest in the environment; and frequency of negative facial expressions. There was no statistical difference in the concentration, memory, orientation, depression and social withdrawal between the two groups. Unexpectedly, they also found that more agitation was recorded in the SCF's, which they attributed to a greater environmental freedom and a reduction of psychotropic medication.

The authors (Reimer, Slaughter, Donaldson, Currie, & Eliaszie, 2004) identified a major limitation to their study. The authors felt that assessing the emotional states of the residents to be important. However, as only one measure was taken at each assessment, this single five-minute observation had to represent the resident's emotional state for the whole three-month period since the last assessment. A series of assessments on different days at each assessment period would have given findings which were more representative.

The Reimer, Slaughter, Donaldson, Currie, & Eliaszie (2004) research demonstrates the complexity of using a collection of global quality of life measures to evaluate environmental outcomes. These global outcome measures of well-being are only distally related to the environmental variables under scrutiny and are therefore poor indicators of the effectiveness of the change process. There are two major problems with distal outcome measures (Schulz, 2001; Zarit & Leitsch, 2001). One is that they are not very responsive to changes in the variables under

scrutiny, as they are only indirectly related to them. Therefore the outcome findings are likely to be ambiguous. Additionally, if the outcome measures are distally related to the independent variables it leaves it open for other intervening confounding variables to influence the outcome measures, casting doubt on any conclusions reached. For example, in this research study, it is hard to imagine how changing an environment will have a measureable effect on cognitive and physical function, even if measured over a twelve month period, as cognitive and physical deterioration is so obviously related to the dementia disease process itself. Another example is measuring mood. Mood is affected by having a good night's sleep, being in pain or receiving a visit from a relative, so using mood is an unreliable way of distinguishing between TMU and Household Model Unit (HMU) environments.

An additional problem of this study was that it depended on staff and relative opinions, as expressed in proxy questionnaires, to evaluate change. This, again, creates a distance between what is being measured and the outcome measures, which is a source of error and unreliability.

2.5.4 Challenge of Finding Proximal SCU Outcome Measures

Another Canadian study of eight rural SCU versus eight non-SCU environments (Morgan, Steward, D'Arcy & Werezak, 2004), found the SCU environments were more supportive in six dimensions: maximizing awareness and orientation, maximizing safety and security, regulation of stimulation, quality of stimulation, opportunities for personal control, and continuity of the self. The assessment used to measure the environment was the Physical Environmental Assessment Protocol (PEAP) (Lawton, et al., 2000). These positive outcomes were despite the reported lack of staff training and inadequate staffing levels.

Morgan, Steward, D'Arcy & Werezak (2004) gave helpful descriptive narrative examples of the differences between the two environments. Up to 80 persons ate in one dining room in the

TMU's, resulting in visual and auditory overstimulation. In the SCU's, the residents ate in smaller, more homelike and familiar environments. The authors concluded that the smaller settings reduced anxiety and stresses, making the residents feel more comfortable and secure. The authors made a direct connection between the size of the environment and the regulation and quality of environmental stimulation. Outcome measures can evaluate environmental changes when they are precise and when they are directly related to the environmental variables under study.

The smaller SCU environments had shorter halls and fewer rooms which maximized awareness and orientation. The SCU's were distinguished from other units by being locked units (maximizing safety and security).

However, other linkages are less direct (more distal). The category, personal control, was improved in the SCU as only 18% of SCU residents were restrained; while a disconcerting 44% of residents in the TMU's were restrained. Morgan, Steward, D'Arcy & Werezak (2004) do not describe how they define restraint. However, management policies, operational protocols, organizational culture and staff training are the important influences on restraint rather than the physical environmental effects being studied in this research.

Morgan, Steward, D'Arcy & Werezak (2004) correlated the category, continuity of self, to the home likeness of the physical environment and to the opportunity for involvement in past familiar domestic activities. However, they do not give a pragmatic description of how the environment was used. For example, they do not describe whether the homelike kitchens were used for resident participation. They do not give an indication of how a resident 'lived a life', or, in other words, how life was better in the small units. This highlights a problem using assessments such as the PEAP, which seeks to rate different environments only by what can be seen on walk through

visits. Physical features spotted on a walk through visit on one particular day may have little or no connection with the lived experience of day- to- day life within the unit.

In the study by Aud, Parker-Oliver, Bostick, Schwarz, & Tofle (2005) four demonstration state-of-the-art SCU's were studied using the Special Care Unit Environmental Quality Scale (SCUEQS), a component of the Therapeutic Environment Screening Survey for Nursing Homes (TESS-NH) (Sloane, et al., 2002). This scale covers maintenance, cleanliness, safety, lighting, noise, physical appearance and home likeness. They found that, unexpectedly and contrary to their hypothesis, there were no positive outcomes compared to TMU's. The outcome measures for the study were: falls, weight loss, wandering, being verbally or physical abusive, being socially inappropriate or disruptive, and resisting care.

A major deficit of this study (Aud, Parker-Oliver, Bostick, Schwarz, & Tofle, 2005) was that the outcomes were only indirectly related to the physical changes in the environment. The authors do not explain their assumptions as to why a smaller more homelike environment would improve falls, weight loss, inappropriate behaviour or abusive behaviour. In addition, the outcomes chosen are relatively rare events within an environment. A statistical analysis of rare event requires a great volume of data in order to determine repeated patterns which can be compared.

The authors do not make it clear how the operational and social environments differed between the TMU and the SCU environments. Although the staff are reported as saying that the SCU work was less stressful due to increased administrative support, dementia specific training and flexible work patterns, it is not clear how staff day-to-day work varied from the TMU's.

The Aud, Parker-Oliver, Bostick, Schwarz, & Tofle study (2005) demonstrates the importance of using outcome measures which are directly linked to the environmental changes, and which are

frequently occurring, in order to obtain statistically significant results. In addition, this study would have been more helpful if it had used direct observation to measure outcomes, rather than relying on staff and nursing home records.

A way forward for future studies was identified by the relatives in the Aud, Parker-Oliver, Bostick, Schwarz, & Tofle (2005). They identified the important environmental issues for their family member were: (a) the development of social relationships, (b) the provision of activities and (c) the physical care received. For them, focusing on these as outcome measures would be a better evaluation of whether or not an environment was successful.

2.5.5 Need for a Pragmatic Focal Point

There has been a tendency for research evaluating nursing home environments to use a multiplicity of assessments in a scattergun approach to see what will emerge. This is partly due to the fledgling state and complexity of nursing home research. A scattergun approach means that the research lacks a clear focus. In addition, a highly complicated analysis may not produce outcomes that are meaningful and of practical value. In short, a scattered research approach can be superficial and lacking in depth. In the case below (Zeisel, et al., 2003), the research was undertaken using a scattergun approach. Furthermore, the physical assessment was undertaken in one single walk through visit.

A multivariate analysis of 427 residents with dementia in 15 SCU's (Zeisel et al., 2003) reported a correlation between design features and behaviour. The researchers identified different features of the SCU physical environments (privacy, personalization in bedrooms, residential character, and an environment that residents can understand) and equated these with an increase or decrease in problem behaviours. Their Environment-Behavior Factors Model check list (E-B checklist) was developed, using the Delphi technique, by experts in the field

hypothesizing on the environmental factors which were most important in dementia care. These were then amended until agreement was reached by the expert panel.

The definitions of an SCU were not very distinctive. To qualify as an SCU the units had to:

- function as a self-contained unit
- be a physically distinct part of a nursing home complex
- have staff dedicated to work on the unit
- be secure
- include only those residents who have a dementia.

There were two investigators who evaluated the same 30 premises independently. Pictures were taken in case of discrepancy between the two raters in order to assist resolution. If opinions of the environment still varied a third professional was engaged to help reach a common resolution. And, finally, the five point rating was collapsed into a less challenging three point rating scale: excellent, moderate, poor. The research outcomes were not conclusive, so the researchers used only the 15 most variable SCU's in their analyses in order to increase any potential differences in outcomes. Below are some of the ranges of physical environment components covered by their E-B checklist:

- camouflaged doors and exits
- immediately locking doors, long sight lines and straight corridors
- orienting devices along the corridors
- single person bedrooms and toilets
- opportunities for personalization within the room
- common spaces divided into kitchen, living room, dining room and activity room

- doors to outdoor space
- appropriate security fencing to prevent exiting
- 7-15 residents
- homelike character, which includes non-uniformed staff and domestic style furniture and fittings
- ease of staff surveillance
- prosthetic supports such as grab rails for toilet and shower, banister rails in hallways
- moderate levels of background noise
- sensory input that is meaningful, including kitchen smells and sounds of activities.

In the Zeisel et al. (2003) study, problem behaviours were assessed from the medical records and the professional judgement of a nurse who was familiar with each resident. No actual observations were made by the investigators. The three established scales used were:

1. the Cohen-Mansfield Agitation Inventory (CMAI)(Cohen-Mansfield, Marx, & Rosenthal, 1989), which rates aggressive, physically agitated and verbally agitated behaviour such as hitting out, wandering, restlessness, complaining or noncompliance, making repetitive vocalizing sounds retrospectively over the previous fortnight
2. the Multidimensional Observation Scale for Elderly Subjects (MOSES)(Helmes, Csapo, & Short, 1987) which is a nurse respondent's opinion of the resident's affect or verbal communication that would indicate sadness, being in good spirits, being socially withdrawn, or being self-occupied
3. BEHAVE-AD Psychotic Symptom List (Reisberg, et al., 1987) which is the nurse respondent's opinion of the frequency of paranoid delusions, such as being stolen from or being harmed and their opinion of the resident's frequency of

misidentification syndromes (e.g. seeing someone else in the mirror, rather than one's own face)

Aspects of this study (Zeisel et al., 2003) exemplify architectural determinism (Keen, 1989). The authors sought to correlate the physical environment, as surveyed on a single walk-through visit, with the agitation, aggression and mood of residents, as identified retrospectively by nursing staff.

A once off survey gives very limited information. As an example, having a door to the outdoors was scored as a positive feature in the E-B Checklist. However, a once off walk-through visit cannot indicate if and how often residents have access to the garden, if it is used for calming residents, or, if it is ever used for outdoor activities to create a more stimulating day. Such pragmatic real-life operational policies cannot be observed in a one-off walk through visit.

Architectural determinism leaves little room for rival explanations for the outcome measures. In contrast, Cohen-Mansfield and colleagues (2010a) were able to verify, through direct observation, that different types of stimulation (music, social stimuli, and individualized stimuli) directly (proximally) affects agitation. They hypothesized that physical agitation is the result of boredom, which is relieved by stimulation, whilst verbal agitation arises from loneliness and pain (Cohen-Mansfield et al., 2010a). In other words, it is not the physical environment itself, but the boredom, low levels of physical activity and psychic distress in nursing home environments which create aggression and agitation for residents with dementia (Scherder, Bogen, Eggermont, Hamers, & Swaab, 2010), so agitation is only distally related to any specific physical environment component.

The Zeisel et al. (2003) study obtained some noteworthy findings. Contrary to their expectations, they found that social withdrawal was more prevalent in the smaller units. The study also found that higher staffing levels were associated with lower verbal aggression scores. Reduced aggressiveness, reduced agitation and fewer psychological problems were correlated with (a) privacy and personalization in the bedrooms, (b) having a residential character, and, (c) having an environment which was easier for residents to understand. This research has the same problems as identified earlier, that of outcome measures which are only distally related to the environmental changes, allowing only a tenuous associative link. It did not take into account other intervening variables, such as boredom and absence of activity, which may be influencing any results recorded. In addition, direct observations were not performed, but the researchers relied on the memory of the experiences of nursing staff about each resident, which is a potential source of subjective error.

Trying to understand residential environments has been challenging because of the complexity of defining environmental variables. The Zeisel et al. (2003) study helps to move the research debate forward in that the authors recommend the need for establishing greater rigour, with greater specificity of interventions and outcome measures. They recognize the contribution of both behavioural and environmental approaches to improve quality of life. However their results give only a scattered and superficial understanding of the environmental factors as they influence residents with dementia, because the research tries to marry environmental variables with distal global behavioural outcome measures, which may, or may not, be directly influenced by the environmental interventions they are seeking to investigate.

2.5.6 Practical and Proximal Outcome Examples

The research study of Wood, Harris and Snider (2005) used an observational technique to evaluate time use – occupation and social engagement – of residents in a special care unit. The study examines practical day-to-day behaviour. The researchers devised an assessment form (Activity in Context and Time – ACT). They monitored seven residents intensively every 10 minutes for 12 hours for four days using a computer assisted observational tool. They found that the residents did not interact with another person for 10.5 out of the measured 12 hour day (87%). Residents were observed to interact with the environment 29% of the time. They spent 40% of their time with eyes closed. They were actively engaged in conversation 9% of the time and participated in activities for 26% of the time. When awake, residents showed no emotion for 39% of this time.

The researchers (Wood, Harris, & Snider, 2005) offer some practical insights about the life in the SCU. They found that residents did not watch the television when it was on. There were low interaction levels from staff at meal times, and, residents rarely interacted with one another. Residents responded to some groups, such as lecture groups, by falling asleep, while other smaller, more social and more interactive groups sustained resident involvement. This study demonstrates how practical observation of day-to-day outcomes aids in understanding how a whole environment impacts those who are living their lives within the unit.

Weyerer, Schaufele, & Hendlmeier (2010) investigated the differences between 28 special care units (total: 594 residents with dementia) and 11 traditional nursing homes (total: 573 residents with dementia). They used a whole environment approach. Higher staffing ratios, specialized staff training, enhanced care and specific architectural design concepts characterized the SCU's. Although they used proxy reporting from the staff, many outcomes measures were

practical and specific. In the SCU's there were significant changes in the levels of social contact with the staff, more involvement in activities outside the units, more expression of interest, more participation in activity groups, greater levels of volunteer carers, greater use of psychiatrists, and fewer physical restraints. No differences were found in the involvement of family carers, interaction between residents, activities offered within nursing homes, use of psychiatric medication and expressions of pleasure, anger or anxiety. They note that many of these significant effects can be attributed to the augmented programming, staff training and extra staffing in the group homes, as opposed to any specific physical environment changes.

2.5.7 Conceptualizing Occupational Space

Specialist environments are insufficient on their own to create meaningful time use and resident interactions. Without the animation of staff, communal living spaces become 'lifeless' (Zeisel, 2005). Even the presence of staff and others in the room is insufficient to evoke many social exchanges (Hasselkus, 1998). Resident engagement depends on staff to manage activities and conversations (Wood, Harris, & Snider, 2005), which requires operational policies and organizational commitment. In other words, it is the *use of space*, rather than the *design of space*, which is important (Innes, Kelly, & Dincarslan, 2011). Hasselkus (1998) names animated environments as 'alive occupational spaces'.

Assessing an environment's effect on quality of life for residents with dementia is complex. Deep explorations and insightful explanations must come from a well judged understanding of the environment and its effects on residents (Sloane, et al., 2005). The research literature described above has shown how research outcomes are improved by moving away from simplistic conceptions of environmental effects. A whole environment comprehensive approach includes staff culture, operational programming and the organization of services. The most helpful

research eschews the idea of single 'quick fix' interventions and superficial conceptualizations of cause and effect. Instead the most valuable research uses:

1. recognition of whole environment effects and
2. verifiable behavioural outcomes which are directly linked (proximal) to the environmental elements under scrutiny .

2.6 CHAPTER SUMMARY

This chapter discussed theories about how the environment affects people with dementia. The important work of M. Powell Lawton was presented, including the Environmental Domicity Theory and the Competence Press Hypothesis.

Issues of importance to people with dementia were then explored. These issues included the need for meaning and purpose in one's life. Occupation and social engagement are able to give one's life meaning and to establish a sense of home. The importance of these concepts was discussed in relation to people with dementia in residential care.

This chapter then described the origins of the traditional or institutional type of nursing home care. It then explored two types of environments (SHU & SCU) which have been created as alternatives to the traditional type of care. Chapter 3 following will explore in detail the Household Model Unit (HMU) which is the type of unit which adopted by the nursing homes studied in this thesis. An early example of an HMU environment is provided. The remainder of Chapter 3 provides the detailed description of HMU environments. The detailed description enables this research study to compare and contrast the HMU environment with the TMU environments and to be able to make recommendations for the development of other HMU's.

CHAPTER 3: HOUSEHOLD MODEL UNITS

3.1 INTRODUCTION

In this Introductory Section, Household Model Units (HMU's) are distinguished from Special Care Units (SCU) and Small House Units (SHU's). The rationale or purpose for HMU's is presented and a brief introduction is given to the complexities of nursing home environment research.

HMU's have many of the physical features of a Traditional Model Unit (TMU). Most often they are the results of a large nursing home being divided into smaller household units (Cutler & Kane, 2005) with their own front entrance leading directly into the communal living spaces. They are defined by having unit sitting and dining areas and functioning kitchens (Grant & Norton, 2003). The term SCU is a generic term encompassing all types of environments as long as they are for people with dementia and are secure. In contrast with SCU's, HMU's can be for any type of resident, not just residents with dementia and would only be secured if they served residents with dementia. An HMU would be classified as an SCU if it was dementia specific, but only a small proportion of SCU's are HMU's, with the physical layout as above. The confusion of definitions makes understanding and comparing difficult.

In contrast, it is easier to distinguish HMU's from SHU's. SHU's are group homes with fewer than 10 residents (usually 6-8) living in domestic style bungalows. In contrast, HMU's are larger, having between 15 and 25 residents and are based on a traditional ward type of design in the arrangement of spaces (Calkins, 2009; Grant & Norton, 2003). The size of the HMU gives variety and stimulation for the residents and staff. The work is not as intensive as in SHU's. It may be a more cost effective use of staff rather in an SHU.

For ease of reference, the following is a summary of acronyms of frequently used nursing home types:

HMU = between 15 and 25 residents based on a traditional ward type of design, whose purpose is to provide a homelike type of environment

SCU = generic term encompassing all types of environments as long as they are for people with dementia and are secure

TMU = institutional focus in physical design, operational policy, including centralized kitchens, and command and control hierarchy

SHU = group homes with fewer than 10 residents (usually 6-8) living in domestic style bungalows

The ultimate purpose of an HMU is to provide a more homelike type of environment than a TMU. The purpose of a familiar and homelike environment is to increase social interaction and support. An HMU is easier to manage than TMU's which have 30 or more residents and is less institutional. The intention of the familiar environment of the HMU's is to provide a comfortable familiarity and social support. The domestic setting of the HMU's is hypothesized to create empowering, family style domestic interactions between residents, staff and family (Shields & Norton, 2006). SHU's and many SCU's also claim these same qualities.

Whilst there is no published research on HMU's, some SCU research studies, referred to in Chapter 2, will no doubt have included some environments that on examination could be called HMU's. The next section of this thesis provides a detailed definition of an HMU. Attributes which are most distinctive and which were responsible for creating the positive outcomes of this study

are discussed and defined. By creating this definition, or typology, of HMU's, comparative research can be done with more precision.

Measuring a nursing home environment is a complex undertaking. Precision is required in order that the research is clear about the environmental components which are being compared. The outcome measures also need to be clear and directly affected by (proximal to) the specific environmental components which are under investigation. Rather than using global outcome measures, research needs greater definition regarding which HMU components affect specific outcome measures (Calkins, 2009; Parker-Oliver, Aud, Bostick, Schwarz, & Tofle, 2005).

Much further discussion and research is required to learn about the discrete characteristics of the physical, social and operational environments of residential care (Teresi, Holmes, & Ory, 2000). Mixed methods and in-depth methods, including qualitative research, are required to understand how and why environmental (physical, social, operational) interventions work, or do not work (Cutler & Kane, 2009). In this way, design features are understood, enabling others to learn under what conditions the features are likely to be most effective (O'Malley & Croucher, 2005).

In this research, defining attributes of the HMU will be discussed under three headings: Physical Environment, Operational (Organizational) Environment and Social Environment. These three headings were chosen as they capture the components of the real life environment which impact on the experiences of residents with dementia (Calkins, 2001; Davis, Byers, Nay, & Koch, 2009; Weisman, Calkins & Sloane, 1994). These defining components create a typology which distinguishes the HMU from other types of nursing home units.

3.1.1 HMU Exemplar: Meadowlark Hills

This section describes one of the earliest and most important HMU's, Meadowlark Hills in Kansas (Shields & Norton, 2006). In his book, the Chief Executive Officer, Steve Shields, describes how he became aware of how his residents in his traditional style nursing home lost their individuality and personhood. He describes how he learned to provide more person centred care in his book *In Pursuit of the Sunbeam: A Practical Guide to Transformation from Institution to Household* (Shields & Norton, 2006).

Shields consulted residents, staff and the community on how to change the institutionalized TMU environment in order to make it more person centred and more like a home. His overriding intention was to create a physical personalized environment where life was lived, and procedures carried out, as if it was a normal home. 'It should look, feel, smell and function like a true home we are all familiar with in our own lives' (Shields & Norton, 2006, p. 167). He divided the large TMU complex into individual units of 15 residents, with their own front door and communal living area. Staff were allocated to a specific household, rather than working across the whole nursing complex.

For Shields (Shields and Norton, 2006), privacy and person centred care distinguish an HMU from a TMU. In Meadowlark Hills, each household had its own entrance door opening directly into a communal living area. A home like front door, rather than an institutional front entrance, signalled that this was a private domestic indoor space. The domestic nature of the door, front door mat and fittings created a feeling of welcome to the visitor (Shields & Norton, 2006).

Having a front door meant that visitors no longer walked down corridors in the nursing home complex past the private bedrooms and toilets of residents in order to get to the unit or to find the resident they wanted to visit. While staff must enter intimate spaces as a requirement of the

job, Shields expected them to knock at the private bedroom door spaces and ask for permission to enter.

Shields (Shields and Norton, 2006) expected visitors to respect zones of privacy within the units. The private spaces of the home – bedrooms, toilets and showers – were separated from the communal areas in the Meadowlark Hills units. Relatives were expected to visit in the communal areas, and not to enter the private bedroom zones unless they were intimate relatives. Shields justified his ideas of zones of privacy from his observations and knowledge about how, in Western societies, people obeyed unspoken rules about increasingly private zones within domestic houses. For example, he describes how people soliciting for a charity might stay in the porch area; an acquaintance would feel comfortable in the sitting room; a close friend would feel comfortable going into the kitchen to help themselves to a beer from the fridge; only family feel comfortable in a bedroom area; while only a partner or close family member would feel comfortable sharing the toilet and bath / shower space.

Shields (Shields and Norton, 2006) affirms that using his approach an environment can be created where people begin to thrive, make decisions and have more purpose and meaning in their lives.

3.2 HMU TYPOLOGY: PHYSICAL ENVIRONMENT

3.2.1 Introduction

Parker, et al., (2004) found that building design influenced activity levels and social integration in residential care. The built environment of nursing homes contributes to well-being if it encourages meaningful activity and encourages residents to have independent control over their environment (Torrington, 2006).

The following sections give a physical description of an HMU. Also discussed are the effects of the physical design on the culture of a nursing home and on how care is provided.

3.2.2 Layout: Size, Front Door and Separation of Bedrooms down Hallways

HMU's are moderate in size, being larger than small house (SHU) environments (usually with 6- 8 residents) and TMU's, which can have 30 or more residents. Calkins (2009) and Shields and Norton (2006) define an HMU as having around 15 residents, while Grant and Norton, (2003) suggest an HMU could contain up to 24 residents.

Although HMU's can be purpose built and even freestanding, they are usually reconstructed from the existing wards of large nursing homes. The rationale for dividing the large nursing complex into household units is to create a more intimate and caring environment, where residents and their needs are known. Furniture is chosen to be comfortable, domestic and familiar, rather than institutional and functional. Creating a front door to each household unit gives an opportunity to create a domestic door, so that visitors feel as if they are walking into a home, rather than a hospital.

HMU's have their own dining area eliminating the noise and over stimulation of dining rooms which serve all of the residents in the whole nursing home complex. For many residents with dementia, large nursing home dining rooms are very stressful, leading to agitation, poor concentration and behaviour management problems for the staff (Algase, Beattie, Antonakos, Beel-Bates, & Yao, 2010; Dewing, 2009; Reed & Tilly, 2008). Having a dining room in the unit means residents don't have to be shepherded out of the unit to central dining rooms (Grant & Norton, 2003), saving time and effort, especially if some residents are resistant to being moved.

Most TMU's have long wide hallways with the bedrooms off. The focus in these units is to make care tasks efficient for the staff, with their rotas and routines and their needs to move beds, trolleys and residents in wheelchairs and large mobile chairs. For the HMU's which are converted out of the TMU's, extensive modification of these hallways is impractical without a complete demolition and rebuild. The solution for the HMU's is to keep the hallway spaces, but to divide the total complex into physically separate units. The hallways are shorter servicing only the residents on the unit and they lead off from the communal sitting area. Staff and visitors no longer have access to one unit by walking through another. They are expected to use entrance doors, as people do in domestic houses.

In addition, the entrances to the bedroom hallways are given doors or design features that help to delineate these spaces as being private. Visitors are not expected to visit in the bedrooms (unless they are intimately related to the resident). This reflects a private domestic home where visitors do not visit the personal bedroom zones of the house when they visit. Privacy is one of the most important principles of the household units and this principle defines, to a large part, the difference between a TMU and a HMU (Shields & Norton, 2006).

3.2.3 Open Plan Spaces which Encourage Activity

Inactivity and sensory sameness are the enemies of quality of life (Lawton, 2001b). Communal rooms need to encourage activity and participation, as well as social engagement. This section will explore how communal areas need to be open and centrally located in order to encourage engagement, activity, participation and stimulation for people with dementia (Milke, Beck, Danes, & Leask, 2009).

Traditional design advice has recommended small domestic size rooms for activities, the rationale being that smaller rooms are more familiar and domestic in scale, and do not have too

many people in them, and so are not overly stimulating (Coons, 1991b). However, in practice, small rooms are avoided by residents with dementia. Instead they are attracted to larger communal sitting rooms, even if this means overcrowding (Saperstein, Calkins, Van Haitsma, & Curyto, 2004; Van Haitsma, Lawton, Kleban, Klapper, & Corn, 1997). In real life, people want to be in an activity hub; to be 'where the action is'. This is also true for people with dementia. They choose not to be shut away in isolation in little rooms, either sitting on their own or in a small group.

Because of their difficulties with self-initiation, residents with a moderate to severe dementia are unable to purposefully organize themselves to join activities groups if they are held out of visual sight in separate rooms. However, in an open plan environment, residents with dementia are cued to participate in whatever activities may be happening (Alden, 2010; Heijmen & Manthorp, 2011; Schwarz, Chaudhury, & Tofle, 2004). In addition, they are prompted to move independently from the sofa to the activity tables to join or participate in activities or move to and from the dining tables before and after meals. Seeing staff undertaking domestic tasks such as sweeping, wiping down tables, or setting the table prompts some residents to join in and assist. If objects such as drawers for rummaging or table napkins or clothes for folding are within visual range, they may stimulate investigation and interaction (Lawton, 2001b). A stimulus-rich open plan environment encourages investigation of piles of greeting cards, aprons, hats and other apparel for putting on, laundry baskets for folding, and containers of fabric swatches and bureau drawers for rummaging. These unstructured activities provide self-directed interest and a release of energy for the residents (Lanza, 2008; Reed & Tilly, 2008).

Watching other people is a human trait and people sit in porches, terraces and pavement cafes to watch people go by (Alexander, et al., 1977; Danes, 2002; Lawton, 2001b). Human beings

position themselves at entrances and lobbies because they are places of human activity and busyness and because people want to see who is coming and who is leaving out of interest and curiosity (Principle of Spatial Centrality, Lawton 1970). Residents prefer to locate themselves in these areas rather than in sitting rooms, dining rooms or recreational activity rooms (Campo & Chadhury, 2011; Cutler & Kane, 2009; Danes, 2002; Innes, Kelly & Dincarslan, 2011; Lawton, 2001b; McAllister & Silverman, 1999; Weenig & Staats, 2010). The busyness of the staff accomplishing their various tasks in this communal space also attracts residents into the open plan area (Innes, Kelly, & Dincarslan, 2011).

People engage with others by simply watching (Lawton, 1970). Nursing home residents can partially fulfil their need for occupational performance by watching staff work. This has been termed 'being in the midst of doing' (Robertson & Fitzgerald, 2010) and 'being in the atmosphere of doing' (Van't Leven & Jonsson, 2002). Van't Leven and Jonsson (2002) hypothesize that this vicarious participation fulfils some of the same needs as actual physical participation.

Open plan spaces allow effective staff supervision and means that staff can provide the required assistance promptly when it is required. If staff undertake their administrative duties in the main sitting room areas, rather than at a nursing station or in an office, there is more staff – resident social engagement (Campo & Chaudhury, 2011). Open plan spaces that give maximum visual access to people with dementia is now generally accepted as an important design principle for residents with dementia (Fleming & Purandare, 2010).

However, open plan spaces need to be constructed with care and attention. Control of stimulus levels is also an important design consideration (Fleming & Purandare, 2010). With open plan areas there is the risk of overloading visual and auditory stimulation (Bakker, 2003; Campo & Chaudhury, 2011; Lawton, 2001b; Morgan & Stewart, 1997; Morgan & Stewart, 1998; Morgan,

Steward, D'Arcy, & Werezak, 2004). Good design recommends that there are small clusters of tables and chairs which create areas of semi-privacy and place, preferably anchored to some architectural feature (Lawton, 2001b; Robson, 2002(i); Weenig & Staats, 2010) without losing the visual access and participation within the whole room. Carpets, sound absorbent ceiling tiles, lined curtains and the use of fabric on furnishings and walls can assist to control noise, along with the careful use of media such as radio and television (Bakker, 2003; Fleming & Purandare, 2010).

3.2.4 Kitchen

More than any other single feature, a domestic kitchen defines a home. This is the hub and heart of most domestic homes (Brawley, 2006). It is familiar and the tasks associated with it are distinctive and orienting. The act of eating and drinking is nourishing and develops a sense of communal life.

Unit kitchens and the preparation and serving of food distinguish an HMU from a TMU (Grant & Norton, 2003). TMU's are defined by meals being cooked and prepared in centralized kitchens away from the unit. In some TMU's, residents eat in a centralized dining room, while in others food is brought down from the centralized kitchens to unit dining rooms. Whilst the provision of food is always a defining event in residential life, the preparation of food in the TMU's is institutionalized and outside the life of each unit.

There is some flexibility in how different HMU's use their kitchen areas (Cutler & Kane, 2005). HMU kitchens can prepare and cook bread, biscuits and pastries. Some HMU kitchens are able to prepare full meals. However, given that most HMU's were created from larger centralized nursing homes with centralized and efficient kitchens and staff in situ, most HMU's have the main meals prepared by these centralized kitchens, and delivered from here to the HMU's to be kept warm, plated and presented from the unit kitchens. The unit kitchen is responsible for washing the china

and cutlery, for keeping food ready to serve for those unable to be present at a mealtime and for storing easily prepared food.

Although a kitchen component is part of the definition of a small house or household model of residential care, there are few, if any, studies which investigate how the kitchens are used therapeutically (Calkins, 2003b). Kitchens are not used for residents due to Health and Safety and Infection Control issues, poor initial design, poor staff training and insufficient staffing allocated to work within them. In practice, most kitchens fail to achieve their therapeutic potential (Cutler & Kane, 2009; Nagy, 2002; Saperstein, Calkins, Van Haitsma, & Curyto, 2004).

The physical design of an environment determines if kitchens are used. These are some of the key points to consider for the design of the kitchen.

- Residents and relatives do not make use of unit kitchens which are physically separated from the main living areas (Nagy, 2002).
- A kitchen is less meaningful to residents if they see it, but do not partake in its functions (Saperstein, Calkins, Van Haitsma, & Curyto, 2004). For kitchens to be used they must open into the communal living areas so that they are actively used and integrated into the life of the unit (Alden, 2010; Nagy, 2002).
- Placing the unit kitchens prominently within an open plan space allows staff to undertake the domestic tasks while, at the same time, being able to interact with and visually monitor the residents in an open plan space.
- This comprehensive multiple tasking makes the role of a homemaker assigned to the kitchen area useful, multifaceted, efficient and effective, meaning that the kitchens and open plan area are more likely to be consistently staffed (Milke, Beck, Danes, & Leask, 2009).

Familiar domestic activities are able to engage more people with dementia than craft or other leisure activities (Beck, 2001; Brooker, 2008). Having a home like household environment offers an exceptional opportunity for engagement in interactive occupations. Domestic tasks are 'over-learned' through decades of repetition and are, therefore, familiar, engaging and motivating (Alzheimer's Australia, 2004; Brawley, 2006; Calkins, 1988), for previous home makers. The task components are simple and repetitive and within the capability of many without the need for any new learning. Linking with one's own past identity provides pleasure for people with dementia (Brooker, 2008). For example, the benefits of cooking and kitchen tasks for residents with dementia include:

- providing familiarity and connection to one's past and one's identity (Brawley, 2006; Calkins, 1988); creating interest and a familiar remembered stimulation (Nagy, 2002);
- encouraging interest and social interaction (Brawley, 2006; Calkins, 1988);
- promoting feelings of comfort, participation, competence and self-esteem (Brawley, 2006; Calkins, 1988);
- encouraging a sense of being in control and at home (Alzheimer's Australia, 2004; Nagy, 2002; Saperstein, Calkins, Van Haitsma, & Curyto, 2004; Smith, Mathews & Gresham, 2010);
- stimulating improvement in eating and drinking, decreased meal time agitation, and improved attention span after the meal which are all correlated with assisting in food preparation (Clarke, 2009);
- maintaining skills (Saperstein, Calkins, Van Haitsma, & Curyto, 2004).
- improving quality of life and slowing functional decline (Nagy, 2002).
- encouraging extended family interactions

Identity is shaped by what a person chooses to do and how they do it (Christiansen, 1999; College of Occupational Therapists, 2007). Growing vegetables, cooking a meal or milking cows are examples of how occupations define a person. Involvement in occupations and social interactions gives a sense of meaning (Phinney, Chaudhury & O'Connor, 2007; Rowles, 2008) and coherence (Christiansen, 1999) to life.

People with dementia lose feedback from social engagement and interactive occupations which are critical to maintaining a person's identity (Christiansen, 1999). Previous skills and abilities are lost due to cognitive and physical decline. They lose their ability to maintain concentration and to pay attention, as well as losing their ability to self-initiate personal involvement in activities (Kolanowski, Litaker, & Buettner, 2005). As expressed by Lawton's Docility Theory (Lawton, 2001b) people with dementia become increasingly reliant on the environment, and people within this environment, to stimulate and provide engagement and interaction for them. People with dementia living in a nursing home are at risk of reduced activity levels, increased passivity and overly dependent behaviour (Holthe, Thorsen, & Josephsson, 2007).

Some nursing homes allow relative and assisted resident access to the kitchens (Smith, Mathews, & Gresham, 2010), whilst for many the kitchen is a staff facility only (Saperstein, Calkins, Van Haitsma, & Curyto, 2004). There is a tension between Infection Control and Health and Safety on one side, and, person centred care and improved quality of life experiences on the other (Torrington, 2007).

As their dementia progresses many residents start to eat less and less. Staff time is required to ensure that these residents are eating enough to sustain themselves. However, the self-feeding behaviour of residents increases as a result of the visual, olfactory and auditory stimulation of meal preparation (Cleary, Van Soest, Milke, & Misiaszek, 2008). A familiar domestic environment

has been shown to be associated with higher food and fluid intake (Cioffi, Fleming, Wilkes, Sinfield, & Le Miere, 2007; Reed, Zimmerman, Sloane, Williams, & Boustani, 2005). In addition, having a unit kitchen is associated with better resident-staff interactions and decreased agitation of the residents (Cioffi, Fleming, Wilkes, Sinfield, & Le Miere, 2007; Sloane, Mitchell, Preisser, Phillips, & Commander, 1998).

The research study of Altus, Engelman and Mathews (2002a) explores how operational procedures around food can directly impact the communication and active participation of residents at mealtime. The researchers found low rates of resident communication (5% of time use) and active participation (10% of time use) when food was served already plated up. However, when residents were allowed to help themselves from bowls of food put on the tables, their communication and participation doubled. Moreover, after staff were trained in how to prompt and praise behaviours, resident participation rose to 65% of all observations and communication rose to 18% of all observations (Altus, Engelman & Mathews, 2002a).

The provision of food and beverages in a nursing home are important anchoring events around which the rest of the day revolves. It is of huge significance whether or not the provision of food is institutionalized and ritualized, as rotas and routines can disable residents, or whether food provision is cooperative and person centred, and assists the person to interact, become engaged and interactive and maintain skills and identity.

3.2.5 Physical Environment Typology: Summary

This section has described the physical components of a typical HMU environment, which has 15-24 residents and a physically defined area with its own entrance to the external world. The bedrooms are down hallways, which gives them a sense of privacy. The main rooms are open

plan, to encourage interaction and engagement. Each household has a unit kitchen for the provision of food and interaction with residents.

This section has explored how the positioning of the kitchen in the open plan area is important. It has described the importance of domestic tasks as occupational opportunities for residents and the positive benefits which can be gained as a consequence.

The next section describes the critical contribution of person centred care to the creation of an HMU.

3.3 HMU TYPOLOGY: SOCIAL ENVIRONMENT AND PERSON CENTRED CARE

Since the 1980's there has been a growing recognition that *quality of life* is as important as *quality of care* in nursing homes provision in the US (Koren, 2010). This has led to what is often termed 'person centred care'. Defining person centred care is complicated as the concept is multifaceted. The concepts of person centred care, culture change and homelike environments are inexorably entwined, are interdependent and are difficult to define without reference to each other. This intertwining of concepts can be noted in the definitions of person centred care below.

For people with dementia, person centred care is characterized by environments and life situations which preserve a person's dignity. According to Kitwood (1997), preserving dignity defines person centred care and thus should be the prime goal of all interventions. Dignity is preserved when personal competence in the occupations of daily life is maintained to each person's ability (Hung & Chaudhury, 2011). The staff, the social, the physical and the operational environments all have a role in this undertaking.

Calkins (2002) defines a successful person centred care environment as being a cohesive system where the organizational, social, and physical environments work together to support the unique needs and abilities of the individuals with dementia and their caregivers. Hancock, Woods, Challis, & Orrell (2006) also identify how operational issues, such as staffing levels, staff approaches and how care is provided all contribute to a person centred environment.

Person-centred practice for McCormack (2004) is defined by: (a) having relationships with others, (b) living in a social environment, (c) living in a physical and organizational environment which supports personal independence and interaction and (d) acknowledging each person as a separate and unique identity. McCormack's person centred environment is defined by interaction and engagement.

The literature review of van der Roest, et al. (2007) found specific psychosocial needs of people with dementia living in residential care. These needs were identified as being: (a) to be accepted for whom one is, (b) to find adequate strategies to cope with decreasing abilities and (c) to come to terms with their continuing losses.

Brooker (2003) defines person centred care as valuing people with dementia (and their paid or family carers), being treated as an individual, looking at the world through the eyes of the person with dementia and creating a positive social environment. If residents are going to be treated as a person, his or her interests, needs and vulnerabilities must be known.

3.3.1 Person Centred Care Examined

Institutional environments are defined by rota systems which are used to make sure that all residents are out of bed, fed, medicated and put back to bed at appointed times. TMU care is based around the needs of staff and the requirements of regulations which are determined by

governing legislation, which neglects to consider many person centred psychosocial needs (Ragsdale & McDougall, 2008).

Being given choice and having stimulating activities which are tailored to the individual are important for the quality of life in residential care (Train, Nurock, Manela, Kitchen, & Livingston, 2005; Orrell, et al., 2008). Unfortunately, nursing homes prioritize physical care and adaptations to the physical environment, while the psychosocial needs, such as the need for social engagement and occupational interaction, are often not met (Hancock, Woods, Challis, & Orrell, 2006; Moore, 1999; Moore, 2004).

The concept of person centred care has been widely influenced by the work of Kitwood (Kitwood, 1997; Nolan, 2001) who turned the spotlight on the lived life of each person with dementia as an individual. This strength is also a weakness. In real life there are inherent tensions between the needs of the individual and the needs of other residents and staff (Nolan, 2001). Despite these limitations, the concept is a good one, in that it highlights the importance of seeing each person in terms of their individual needs and wishes, rather than as an object or task to be accomplished.

3.3.2 Facilitating Choice in Person Centred Care through Knowledge of the Person

Berg, Hallberg and Norberg (1998) found that person centred nurses used a delicate and complicated interpretation process in their efforts to adapt care to individuals with severe dementia. The nurses described how residents with severe dementia have lost their ability to represent themselves verbally and express feelings or fulfil their own needs and wishes. They were utterly dependent upon their carers to search for meaning of each individual's behaviour. They identified the vulnerability of the residents, who depended on carers to interpret body

movements, body tension, gestures, postures, sounds, grimaces, eye and body movements, and facial expressions. These interpretations were combined with the nurse's knowledge of their past life history, known preferences and previous situational reactions in order to provide sensitive and person centred care. They blended their knowledge of the resident's personality and life history with their knowledge of the disease progression within their environmental context.

A person centred approach of staff has impact. Individual staff with a person centred approach had a better understanding of how cognitive deficits affected a person's functioning than (a) those staff who had received specialist training, and, (b) those staff with extensive care experience (MacDonald and Woods, 2005).

A nursing home organization can create a person centred environment through its operational policies and reward systems. Basic life history knowledge is necessary in order to interpret the needs of residents and to provide good individualized care (Berg, Hallberg, & Norberg, 1998; Donovan & Dupuis, 2000). Examples of good person centred practice for the nursing home unit is the recording of a Life History Book, which includes their likes and dislikes and life experiences of every new resident. A person centred organization will make time for staff to read this information, and expect that staff will be able to implement this information about each resident's experience and personality in daily life in the nursing home unit. Nursing homes which took detailed case histories at admission, and were able to allocate staff to a small number of residents, had smaller gaps between residents' needs and the care they received, particularly in the psychosocial domains (Holtkamp, Kerkstra, Ribbe, van Campen, & Ooms, 2000).

However communicating and consulting with people takes time (Stone, 2003). This has implications for staffing levels, the training of staff and the ongoing organizational leadership and support for staff-resident interaction and engagement.

3.3.3 Person Centred Care and Relatives

Relatives do not want to provide direct care themselves in a nursing home, as this is the role of the staff. However, they do want to be a teaching resource to staff, so staff are able to deliver responsive person centred care (Gaugler & Ewen, 2005). Unfortunately, staff hesitate to engage with families to facilitate this family participation in care. This deprives them of useful cooperation and essential personal information about each resident (Maas, et al., 2004). From the perspective of relatives, preservation of the identity of the resident can only be accomplished through collaborative efforts with relatives (Gaugler & Ewen, 2005). Although relatives were no longer responsible for the wellbeing of their family member, many relatives continued to have psychological distress about the care of their family member (Train, Nurock, Manela, Kitchen, & Livingston, 2005). The authors identified the need for better communication between staff and relatives. Unfortunately, most often it is up to the relatives to take the initiative to establish relationships with staff (Hertzberg, Ekman, & Axelsson, 2001).

The role of relatives changes from a direct care giving responsibility to a more indirect supportive and interpretive role when their family member is admitted to a nursing home. In most cases they receive little or no assistance from staff for this transition (Maas, et al., 2004). Furthermore, because the relatives are required to assume a role that is both unfamiliar and poorly discussed, this leads to misunderstandings, dissatisfaction and adversarial conflict with staff (Specht, et al., 2005). Developing relationships with relatives depends to a large extent on the attitudes and approaches of individual staff. For example, Gaugler & Ewen (2005) found that the staff who had the best relationships with residents also had the best relationships with relatives.

Purposeful contact with relatives improves relative satisfaction, ameliorates their feelings of loss and creates favourable relationships between staff and relatives (Maas, et al., 2004). A person centred organizational approach ensures relatives are included in the underlying nursing home philosophy of care (Specht, et al., 2000). Happier relatives with this sense of shared purpose will have a positive effect on the residents. Additionally, if relatives provide more background personal information to the staff, this will be used in their person centred care.

3.3.4 Meaningful Engagement and Interaction in Person Centred Care

Human lives are given dignity and meaning through social connections and meaningful occupational interaction. People with dementia have the human need to be included and involved (Zingmark, Sandman, & Norberg, 2002). For relatives it is important that their family member experiences involvement in a life worth living, rather than merely existing or surviving (Robinson, Reid, & Cooke, 2010). Residents with dementia rate their social life, the 'web of meaning and relationships in their lives as a whole' (Rockwell, 2012, p. 245) as being more important than their physical care.

3.3.5 Social Environment Typology: Summary

An HMU has a philosophy of person centred care and is exemplified by the staff facilitation of resident choice, as well as resident occupation and social engagement. Staff must get to know the residents individually in order to be able to facilitate choice, conversation and activities of interest. This section has highlighted the contribution that relatives have in facilitating staff knowledge about the individual to allow them to provide person centred care.

3.4 HMU TYPOLOGY: OPERATIONAL ENVIRONMENT AND CULTURE CHANGE

3.4.1 Introduction

It is not possible to create a person centred culture without creating operational and organizational change, also known as ‘culture change’. Culture change is an umbrella term for the coordinated process of implementing physical, operational and social change in nursing home environments in line with a commitment to person centred care (Davis, Byers, Nay, & Koch, 2009). It involves the whole of the organization and creates new methods of working and engaging with residents (Cutler & Kane, 2009), which is attentive to the needs of both residents and staff (Pioneer Network, 2011). Scalzi, Evans, Barstow & Hostvedt (2006) define the core values of culture change as:

- (a) enhancing resident-centred care,
- (b) creating a homelike environment,
- (c) creating a respectful environment,
- (d) providing empowerment and choice for residents and
- (e) ensuring quality of work life for staff.

The most important element for this culture change is the shift in focus from the resident’s condition to a focus on their experience (Davis, Byers, Nay, & Koch, 2009). The medical and nursing model of sickness and disability, with its endemic boredom and learned helplessness, is replaced with a model defined by social participation and close relationships (Koren, 2010). To create culture change, knowledge and training are critical, as are organizational changes that

reflect a less centralized and less institutionalized 'command and control' decision making process.

The organization must organize staff resources, training and operational changes to create new ways of working (Cutler & Kane, 2009; Saperstein, Calkins, Van Haitzma, & Curyto, 2004). If staff are required to undertake new roles and to do things differently, this will require training and planned reinforcement of the wanted behaviours (Altus, Engelman, & Mathews, 2002b).

The physical structure of a nursing home environment, whether SCU, small house or HMU, will not provide an improved nursing home environment on its own without corresponding operational policies and a change in the culture or way of doing things (McFadden & Lunsman, 2010; Perrin, 1997b). Schwarz, Chaudhury and Tofle (2004) discuss how good design can fail through a lack of operational policies and procedures that deal with (a) a lack of activities, (b) high staff turnover and (c) relative dissonance.

Creating an HMU environment from a TMU environment does little to improve the quality of life for residents or staff morale if the operational culture remains rigid, task oriented and risk adverse (Parker et al., 2004). Units defined by their adherence to safety rules are associated with the lack of provision of pleasurable activities for residents (Torrington, 2007). Residential life cannot be interesting, spontaneous and eventful if the organizational culture dampens this spontaneity with an overemphasis on rules, regulations and limitations.

Institutional TMU environments focus on physical, nursing and medical needs of residents (Maas, Swanson, & Buckwalter, 1994). These needs include eating, drinking, sleeping, toileting, access to nursing and medical staff, the delivery of medications, help with self care and the protection against personal and safety risk (Hancock, Woods, Challis, & Orrell, 2006). This

institutional emphasis on work rotas, routines and schedules, with relatively little priority given to human relationship, interaction and involvement, creates environments which are sterile, depersonalizing and disempowering for the residents (Koren, 2010). The culture change movement is a direct response to this impersonal way of providing real care to real human beings.

Whilst the benefits to the lives of the people who live in residential care are the prime reason for implementing organizational change, there are also benefits to the nursing home itself. Culture change has been associated with staff retention (Koren, 2010). A more positive work environment creates staff wellbeing (Norbergh, Hellzen, Sandman, & Asplund, 2002; te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008a). The Commonwealth fund report on almost 1500 American nursing homes found that the more that nursing homes embraced culture change, the greater their staff retention, occupancy rate, competitive position and operational savings (Doty, Koren, & Sturla, 2008).

3.4.2 Management Roles in Organizational Change

By definition, an HMU is intended to take on domestic household qualities. A domestic household is defined by the relationships of those living in the household and by domestic tasks and activities. If a nursing home environment is to become a household environment, there needs to be a shift away from an institutional approach to an approach which is person centred and relationship oriented and an environment which is defined by domestic activity. Fundamental to cultural change is a commitment from management to reassess how things are done and to implement operational changes. The management functions required to achieve this purpose include leadership and direction.

The staffing in nursing homes, from the management downwards, is nursing dominated, which reflects the prevailing institutional philosophy of care for traditional nursing homes. Those

who care for the residents' social, interpersonal, creative and activity needs, such as social workers, occupational therapists and activity coordinators, are fewer in number and are not part of the usual management hierarchy (Rockwell, 2012). This reflects the relegation of psychosocial issues to a subservient position to the physical needs and medical / nursing care needs of most nursing homes (Rockwell, 2012). Training opportunities are most often allocated to those furthest up the organizational hierarchy, rather than to the frontline staff who have direct interaction with the residents (Rockwell, 2012).

Scalzi, Evans, Barstow, & Hostvedt (2006) analyzed the differences between the command and control leadership of traditional units and the participative leadership of culture change units. They found that participative leadership in the culture change environments was defined by respect for others, enhancement of relationships, person centred care and quality of work life for staff. In the best culture change units, management created effective two way communication with their staff, with innovation and risk being acknowledged and worked with. Participative management styles were seen to encourage resident choice and meaningful activities. In contrast a command and control leadership was defined by the task oriented adherence to a set of rigid operating rules (Scalzi, Evans, Barstow, & Hostvedt, 2006).

In culture change units, there is a flattened, more cooperative hierarchy than the traditional command and control management hierarchy. This organizational shift requires a new form of supportive relationship with managers and supervisors, who must give up authoritarian decision making and bring about a more open and more flexible work environment. Staff are given greater autonomy and are encouraged to make choices and local decisions whenever possible (Grant & Norton, 2003). In order to recognize increased care worker contributions to the organization and their involvement and participation in decision making, career ladders and other professional

growth strategies are created (Parsons, Simmons, Penn, & Furlough, 2003). A 'Family Council' meeting between staff and relatives marks a managerial style which actively seeks to be open, responsive and resident centred. Having a Family Council is associated with an increase in resident satisfaction levels (Lucas, et al., 2007).

The following vignette illustrates the vital contribution of management to culture change. Engelman and colleagues (Engelman, Altus, & Mathews, 1999; Engelman, Altus, Mosier, & Mathews, 2003) successfully trained staff to use praise and graduated prompts to increase resident active participation in their own personal care routines. Despite this success, the researchers found, on their subsequent return, that the staff had stopped praising the residents and encouraging independence. Staff were aware of positive results but still required management reinforcement to sustain these interventions (Altus, Engelman, & Mathews, 2002b). The researchers were able to reinstate the positive interventions by having managers review self reports of individual staff on a periodic basis. Organizational change depends upon management involvement, participation and leadership to not only fund and develop the changes, but also to sustain the changes once initiated (Kolanowski, Buettner, Litaker, & Yu, 2006). For a cultural change to occur, management must give permission, incentives and rewards which are meaningful, timely, and aligned with the perceived person centred goals of the unit (Scalzi, Evans, Barstow, & Hostvedt, 2006).

3.4.3 Unforced Routines

The centralized provision of services creates the organizational rigidity which defines so much of institutional care (Grant & Norton, 2003). In order to create culture change, the organization has to move from a centralized rigid provision of services. Decentralizing services can free up more person focused, spontaneous and flexible provision of services (Donovan & Dupuis, 2000).

In all nursing homes, the day revolves around the provision of food for residents. In large TMU's, centralized kitchens prepare the food which is served at set times, not just to the unit, but to the whole of the nursing home complex. There is a consequent rigid time guillotine determined by the arrival of the food from the central kitchens and which subsequently defines the life of the unit. Residents are shepherded to the dining room to await the arrival of the food. They receive the food and they are shepherded back again.

In contrast, in an HMU, the focus of food provision is the unit kitchen, not the centralized kitchens. The important provision of the food becomes more flexible. Irrespective of whether the food is cooked in the unit kitchens or in the central kitchens, a homemaker can keep it warm until required, if a resident is late, or there is an over run of some activity on the unit. There is less pressure on staff to wake residents to be ready for breakfast at a time which is foreign to them. Instead, they can be catered for whenever they choose to arrive for their breakfast. In addition, individual food preferences can be catered for at short notice and the kitchens can be intimately involved in catering for spontaneous and celebratory events.

Te Boekhorst, Willemse, Depla, Eefsting, & Pot (2008a) found that staff experienced fewer demands and greater job satisfaction in settings where staff and residents jointly participated in household daily life routines, such as meal preparation and domestic activities, had role flexibility, and had close, intimate, family style relationships with the residents. Rather than having strict rules, regulations, and tasks to be accomplished at set times (task guillotines), they had unforced routines which could be flexible and responsive to the wishes and needs of each resident. Staff felt less pressure and had fewer demands when they were following the unforced familiar routines of a normal daily life (te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008a). As an added bonus, Sharkey, Hudak, Horn, James, & Howes (2011) found that, despite having fewer

staff, when these staff undertook domestic tasks alongside caring roles, they were observed to give more direct resident contact than in the control TMU's.

An unforced routine allows resident flexibility for getting up, going to bed, eating and bathing. The outcome of this is less irritability and aggressiveness. Residents are happier and more pleasant (Donovan & Dupuis, 2000).

However, the strategy of allowing residents to get up late in the morning and to eat a late breakfast requires the understanding, agreement and cooperation of staff, relatives and management. Everyone has to understand how these unforced routines are employed and decided. Insight is required to understand how choice and unforced routines are positive indicators of good and purposeful person centred care, rather than being a symptom of neglectful, indifferent and poor quality care (Donovan & Dupuis, 2000).

3.4.4 Stress: Permanent Assignment, Staffing Levels and Outlook

It is important to recognize that the needs of the staff are as important as the needs of the residents (Lindesay, Briggs, Lawes, Mac Donald, & Herzberg, 1991). Their actions, attitudes and beliefs set the tone of the nursing home environments, and create the interactive and engagement opportunities which give quality of life to the residents.

Working in a nursing home is difficult. Caring for residents with dementia can be stressful and distressing for care staff (Pekkarinen, et al., 2006). In addition, work in nursing homes is one of the most hazardous of jobs in America in terms of lost work days, injuries and assaults (Marill, 2012). Low status, lack of respect, poor pay, lack of training, lack of opportunities for career and professional growth, lack of support and inadequate supervision, and the emotional and physical strain of the work lead to frustration and disenchantment, with subsequent difficulties in

recruiting, high worker turnover, and problems with work quality and work behaviours, (Feldman, 1994; Nolan & Tolsan, 2000; Parsons, Simmons, Penn, & Furlough, 2003). However, job strain amongst care workers can be reduced by decreasing job demands and workload and increasing opportunities for work flexibility and decision making (Morgan, Semchuk, Stewart, & D'Arcy, 2002). These are qualities of culture change.

The social bond between care workers and residents is powerful for both parties and is the main reason given by care workers for staying in a job (Parsons, Simmons, Penn, & Furlough, 2003). These relationships between staff and residents, and between staff members, are facilitated when staff are allocated to work in a single unit rather than being allocated across different units in a nursing home complex (Morgan, Semchuk, Stewart, & D'Arcy, 2002; Ragsdale & McDougall, 2008). Similarly, care workers feel unappreciated and undervalued when they are rotated out of their main area of work in order to manage staff shortages elsewhere in the care facility, where they do not have relationships with residents or intimate knowledge of their care and psychosocial needs. While organizational rhetoric often emphasizes the importance of the care worker role because of their intimate knowledge of, and relationship to, the residents, this is breached and staff relationship bonds are discounted when they are asked to work with residents they do not know (Bowers, Esmond, & Jacobson, 2003; Parsons, Simmons, Penn, & Furlough, 2003).

Time pressures and the poor organization of work are associated with mental exhaustion. This leads to depression, heart disease, lack of sleep, anxiety, back problems, impaired performance, decreased productivity, increased absenteeism, increased turnover and low morale (Morgan, Semchuk, Stewart, & D'Arcy, 2002; Rafnsdottir, Gunnarsdottir, & Tomasson, 2004). Mental exhaustion is the most obvious symptom of the burnout syndrome and results in a sense

of de-personalisation and in reduced productivity (Morgan, Semchuk, Stewart, & D'Arcy, 2002; Rafnsdottir, Gunnarsdottir, & Tomasson, 2004). This interferes with the staff member's ability to engage with and be responsive to residents. Resident escape attempts, wandering and regressive behaviours are correlated with emotionally distant, burnt-out and stressed staff (Edvardsson, Sandman, Nay, & Karlsson, 2008). Poor staffing levels make it more likely that staff will feel personally inadequate at not meeting residents' needs for activity, social contact and participation in their own care (Morgan, Semchuk, Stewart, & D'Arcy, 2002).

'Caring takes time and is not possible when facilities are understaffed' (Stone, 2003, p. 417). Inadequate staffing generates inadequate care (Cohen-Mansfield & Parpura-Gill, 2008; Maas, Specht, Buckwalter, Gittler, & Bechen, 2008a). Irrespective of type of nursing home, low staffing levels are a marker for poor care, such as residents being in bed during the daytime, less social contact and lower fluid and food intake (Bates-Jensen, Schnelle, Alessi, Al-Samarrai, & Levy-Storms, 2004). The organization and provision of staff care has a direct influence on the quality of physical care as well as the psychosocial care and quality of life of the residents, such as time spent socializing with residents and providing meaningful activities (Morgan, Semchuk, Stewart, & D'Arcy, 2002). Inadequate staffing is related to increased time pressure and role conflict (Pekkarinen, et al., 2006). Staffing levels correlate with resident satisfaction levels (Lucas, et al., 2007) and quality of care (Harrington, et al., 2000).

As staff costs are a key barrier to addressing work load problems (Harrington, et al., 2000) there is a need to employ additional staff effectively if cultural change is required. Organizational planning and direction is needed, so that staff members don't replicate the current cultural environment, care roles and approaches (Sixsmith, Hawley, Stilwell, & Copeland, 1993; Skea and Lindsay, 1996).

Irrespective of the quality of the nursing home care, staff believe that they are providing the best possible level of care for residents (Orrell, et al., 2008). This means that staff do not easily change their cultural and environmental frame of reference. Fundamental change is slow to occur, if it happens at all (Mountain & Bowie, 1995). Even if they are blind to their own failings, staff witness the poor care of their colleagues and how poor quality care is organized by management (Maas, Specht, Buckwalter, Gittler, & Bechen, 2008b). The perceived poor quality of care is correlated with staff turnover rates, reduced job satisfaction and poor morale (Maas, Specht, Buckwalter, Gittler, & Bechen, 2008b).

To provide a culture change in the way staff work and engage with the residents requires a definition of new and existing staff roles. Increases in engagement and social interaction with residents will occur in more homelike units where job roles are defined by an emphasis on this social care (Skea & Lindesay, 1996).

In most nursing homes, the care worker is the 'hands on' professional dealing with individual residents. If care staff leave a nursing home, there is a permanent loss of organizational knowledge and care skills, as well as the loss of personal relationships with the residents. This loss also represents a financial cost to the organization in terms of recruitment and training.

3.4.5 Developing and Training Staff in Relationship Oriented Methods of Working

The empowerment of staff and local, rather than centralized, decision making affecting day-to-day operations are key components of culture change (Grant & Norton, 2003; Koren, 2010). Providing training to front line workers, in order to devolve decision making, is a hallmark of this organizational shift in culture.

Poor quality of care is related to inadequate training in nursing homes (Maas, Specht, Buckwalter, Gittler, & Bechen, 2008a). For example, in America, 85% of all nursing home staff do not have a formal qualification (Specht, et al., 2005) which makes their in-house training even more important. Staff training is associated with increased job satisfaction, organizational commitment, teamwork and morale and a reduction in turnover and absenteeism, confidence in one's work, as well as fostering staff relationships and quality of care for the residents (Donovan & Dupuis, 2000; Kinjerski & Skrypnek, 2008; Zimmerman, et al., 2005b).

By virtue of their intimate and close association with the residents, care workers are best placed to know the changing needs and wishes of residents. If these staff are given more autonomy and greater participation in care planning, this creates better care for residents and more satisfying and productive jobs for the staff themselves (Brannon & Smyer, 1994; Stone, 2003). Increased autonomy and participation in person centred care gives more task variability and spontaneity (Streit & Brannon, 1994) making jobs more enjoyable and worthwhile. Staff feel ownership of their work when they are able to determine their own work and influence the organization's ways of providing care (Brannon & Smyer, 1994).

The social support that staff receive at work from their peers is defined by an interchange of emotional concern, assistance, information and self-appraisal (Sundin, Bildt, Lisspers, Hochwalder, & Setterlind, 2006). Staff working in SHU's have a greater sense of social support (te Boekhorst, Willemse, Depla, Eefsting, & Pot, 2008a). This increase in social support in smaller working environments is counter-intuitive, as these staff work with fewer colleagues than those staff working in TMU's. However, a staff member who has a sense of being in control of their own job (being able to make their own decisions, as opposed to being controlled by tasks, regulations, or other persons) is able to give and receive better quality social support with colleagues (Sundin,

Bildt, Lisspers, Hochwalder, & Setterlind, 2006), even if the actual contacts with work colleagues are less frequent.

Some nursing homes demonstrate their commitment to the ongoing development of the care worker by creating care worker leadership posts, such as 'household coordinator' or 'resident assistant coordinator', to coordinate each household and its needs. Such changes in organizational culture engender organizational commitment, whilst decreasing staff stress and burnout, and employee turnover (Rafnsdottir, Gunnarsdottir, & Tomasson, 2004) and demonstrate the respect and appreciation of the organization for care workers, thus reducing turnover and enhancing the quality of work and care (Bowers, Esmond, & Jacobson, 2003).

Staff are better able to meet the needs of residents when they have appropriate training and appropriate support mechanisms (Hancock, Woods, Challis, & Orrell, 2006; Harrington, et al., 2000). Brannon and Smyer (1994) take an organizational benefit view of training. They state that training not only makes staff more proficient, but also constructs a 'social contract between employer and employee that furthers the development of each' (Brannon and Smyer, 1994, p. 35). The mutual investments in time and money are 'tremendously important symbols' (Brannon & Smyer, 1994, p. 35) of a joint commitment to a common goal, such as culture change and person centred care. This social contract between the work hierarchies contributes to staff retention.

However, providing access to staff training on its own will not create a living environment which has better quality of life for residents. Training only leads to frustration if the work environment does not then promote and permit the use of the new skills learnt and allow for change and innovation in the way of working (Nolan & Tolson, 2000).

3.4.6 Creating the Homemaker Role in the Kitchen / Open Plan Area

In an ordinary domestic household, the communal living spaces are defined by people interacting and engaging with each other and by various leisure and domestic activities. These spaces are critically important spaces for the functioning of the home. This is the place where the members of a family interact, eat together, are active and participate in family life. A household unit is intended to replicate this domestic household environment. However, residents with dementia are unable to initiate normal social interaction and engagement due to their disease process. They need staff assistance to initiate interactions and involvement in domestic type activities. Staff must be present in the communal rooms if they are to assist the social interaction and interactive occupations that define communal living and engagement (Milke, Beck, Danes, & Leask, 2009).

Redefining staff roles is an effective means of increasing staff social communication with residents (Nolan, Grant, & Nolan, 1995; Morgan-Brown, Newton, & Ormerod, 2013). The term 'homemaker' is a good one to describe a household style staff role allocated to these communal areas, with their emphasis on household tasks, the provision of food from the kitchen, and their emphasis on family style relationships. It is important that they have a separate name and job description which clearly differentiates the role from other care workers in order to maintain their distinct contribution (Morgan, Semchuk, Stewart, & D'Arcy, 2002).

Having a homemaker within a functioning kitchen allows breakfast to be provided as each resident arrives. This alleviates the time guillotine pressure experienced in TMU's where residents must be woken up, washed, dressed and placed in the dining room in time for the breakfast trolley from the central kitchens (Morgan, Semchuk, Stewart, & D'Arcy, 2002). The homemaker post, working in a unit kitchen, is flexible and able to give the breakfast food when each person

arrives. This enables care staff to spend more time with each resident, allowing each person's getting up process to be facilitated, with care staff able to devote the necessary time required to encourage each resident to do more for themselves. As the staff members do not have to hurry the residents in order to be ready for the breakfasts (unforced routines) the residents are less likely to become agitated, which means less stress for all, with fewer difficult behaviours to be managed (Morgan, Semchuk, Stewart, & D'Arcy, 2002).

3.4.7 Operational Environment Typology: Summary

This section described and discussed the organizational and operational qualities which define a culture change environment, such as is required for an HMU. It identified the important leadership role of management in supporting culture change. The section then went on to discuss specific organizational and operational components which enabled a change from stressful, rigid and task based routines to unforced routines and person centred flexibility. Culture change shifts from a command and control culture to one of cooperative and supportive hierarchy. Current research information was provided in relation to decreasing staff stress and supporting their work and their relationships with residents.

In order for unforced routines to occur, the nursing home must move away from a centralized model of the provision of services. In an HMU the unit kitchens and homemaker role facilitate culture change, flexibility and responsiveness to resident individual choice. The role of the homemaker in the kitchen and open plan area was explored in relation to the removal of time guillotines for staff, dictated by the provision of food from centralized kitchens.

The next section will explore how these individual components of an HMU typology can be put together to create a comprehensive definition of an HMU environment.

3.5 DEVELOPING AN HMU TYPOLOGY

It is important to define an HMU in order to understand how to create better environments and provide better quality of life for residents. The qualities which distinguish different environments can be compared and contrasted when environments are defined and categorized.

3.5.1 Determining Environmental Components

There is often an assumption that making an environment look homelike will improve life for residents. However, the evidence for the impact of physical design on such environments is weak and is often based on anecdotal and unsubstantiated knowledge, biased observations and theoretical assertions (Parker-Oliver, Aud, Bostick, Schwarz, & Tofle, 2005). The creation of a home like physical design does not automatically improve resident well-being (Saperstein, Calkins, Van Haitsma, & Curyto, 2004). Other factors, such as the organizational practices and the social environment, are more likely to have a stronger impact on well-being (Koren, 2010, Pioneer Network, 2011). Research which uses a simplistic cause-and-effect paradigm to investigate complex environments provides 'useless information' (Proshansky, Ittelson and Rivlin 1970, p. 37).

However complex and comprehensive investigations have their own challenges. It is hard to disentangle the various components which make up an environment (Parker-Oliver, Aud, Bostick, Schwarz, & Tofle, 2005). Furthermore, the effects of the dynamically changing environment on the person are complex, open, interactive and interdependent (Proshansky, Ittelson, & Rivlin, 1970).

In order to understand a complex environment, it is helpful to use both quantitative and qualitative approaches (O'Malley & Croucher, 2005; Proshansky, Ittelson, & Rivlin, 1970). This thesis study is positioned to fill a gap in the research literature through its spotlight on specific proximal observable quantitative outcomes combined with extensive qualitative interview data.

This combination of approaches provides (a) concrete evidence of change and (b) a precise definition of each of the environmental components which have created this change.

Every real world situation is different from all others. However, if the contexts are similar enough, similar interventions will have similar effects (Teddlie & Tashakkori, 2009). Grouping shared components allows deductions to be made (Teddlie & Tashakkori, 2009).

This thesis uses the concept of a ‘multi-component typology’ (Dagenholtz, Miller, Kane, Cuter, & Kane, 2006; Gitlin, Liebman, & Winter, 2003) as a broad unifying concept to describe how the multi-component elements of these environments can be categorized. The purpose of creating the HMU typology in this section is to enable categorization for clarity and comparison (Gitlin, Liebman, & Winter, 2003).

According to the research literature previously discussed, the components which characterize an HMU are listed in Table 3.1 below.

Table 3.1: Household Model Unit Typology for a Dementia Secure Unit

<p>PHYSICAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • aspects of a traditional ward type design in the arrangement of hallways and communal living spaces promoting privacy • main entrance or front door opening onto open plan communal rooms • functioning unit kitchen within the integrated dining communal space • separation between the communal spaces and the private bedroom areas • between 15 and 25 residents
<p>OPERATIONAL / ORGANIZATIONAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • unforced routines that promote resident choice and independence • homemaker, or similar, allocated to the kitchen and open plan area
<p>SOCIAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • relationship focused care that facilitates social interaction and participation in household activities of daily living • flexible and person-centred staff roles

However, the process of breaking the environment down into component parts, in order to aid understanding, creates distinctions which are artificial. It must be understood that each component is part of a whole environment and that it is reliant on the other components for how it is expressed (Proshansky, Ittelson, & Rivlin, 1970). As an example, it is impossible to separate the effect of the homemaker from the fact that they operate in a kitchen and open plan area. The role would be very different if they were not working in these physical areas. Having the homemaker, kitchen and open plan components are all essential in providing flexible breakfasting and get up times (Donovan & Dupuis, 2000). These unforced routines reflect the person centred care philosophy and the cultural change organization of the HMU's (Donovan & Dupuis, 2000).

This thesis describes the pre and post renovation environments of two different Irish HMU's and includes the use of pictures which illustrate the physical environment. The qualitative data of this thesis reports the views of the staff and relatives. After the two TMU's are converted to HMU's, the same staff and relatives are interviewed to explore how and why the HMU environments are different. The interviewees support the HMU typology as given in Table 3.1. The quantitative observational data shows that the HMU environment is statistically different from the TMU environment for the engaged and interactive behaviours of residents and staff. As will be shown later in later chapters, the quantitative and qualitative data support the typology components outlined in Table 3.1 above.

3.6 CHAPTER SUMMARY

This chapter has provided a description of HMU environments and classified these environments as a typology, which includes the physical, social and organizational components. It HMU qualities were distinguished from SCU, SHU, and TMU environments.

As discussed in this chapter, there has been a tendency to define nursing home environments only on their size or their physical design, without taking important organizational and social environment components into account. While this chapter has explored HMU physical design, it has also emphasized the operational and social environments which are essential components of an HMU environment.

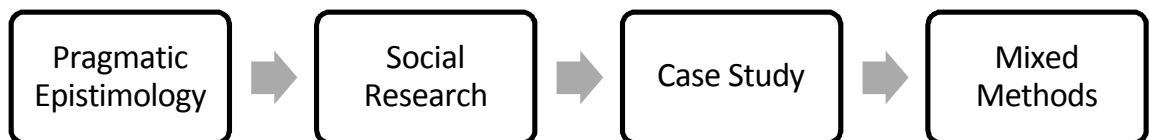
The next chapter (Chapter 4) of this thesis discusses the methodology and the methods used to evaluate the environmental changes. Further chapters (Chapters 5, 6 & 7) provide the findings of this thesis. These findings are brought together, discussed and analyzed in Chapters 8 & 9.

CHAPTER 4: METHODOLOGY

4.1 INTRODUCTION AND BACKGROUND

The purpose of this chapter is to describe the research approach, methods and methodology. The two major philosophical approaches to research are unified under a pragmatic viewpoint, or epistemology, which is discussed first. This is followed by an introduction to social research. As the thesis is an intensive investigation of two nursing homes over time, the type of research can be classified as a longitudinal case study and this is explored next. The case study format of this thesis uses a mixed methods methodology, containing qualitative interviews and quantitative observations. The section of this chapter which contains an introduction to mixed methods also contains a discussion about the use of complementary findings to validate and support the conclusions of this thesis.

Figure 4.1: Foundation of the Research Methodology



The quantitative and qualitative methods used in this thesis are described at length later in this chapter. Detail is provided about how the observational study was conducted, the development of the observation assessment tool and the participant selection and procedures for the interviews.

The thesis results are presented in Chapters 5, 6 and 7. These findings are then explored, analyzed and discussed in the Chapters 8 & 9, with final conclusions drawn and presented in Chapter 10.

4.2 PHILOSOPHICAL FRAMEWORK: PRAGMATISM

4.2.1 Definition

Epistemology provides a philosophical background for deciding what kinds of knowledge are legitimate and adequate (Gray, 2004, p. 16).

Research is the structured and formal attempt to gain knowledge and to establish what is reliably true. Since the times of the ancient Greek philosophers, there have been two main schools of thought (epistemological viewpoints) about obtaining truth about the world (Johnson, Onwuegbuzie and Turner, 2007). These schools of thought offer a contradictory explanation about how people should undertake research (Johnson, Onwuegbuzie and Turner, 2007).

In objectivist epistemology, truth is absolutely objective and 'out there'. The objectivist viewpoint searches for one simple cause and effect answer to questions and then regards this as a natural law. Objectivist epistemology declares that if the right question is asked in the right way, the one and only right answer will be found. If different unbiased researchers undertake the same research in the same way, they will obtain the same findings. Therefore the role of the researcher is to facilitate objective measurement which is detached and unobtrusive in order that the research and its outcome are not affected in any way (Gray, 2004).

The second epistemological viewpoint is constructivism. Constructivism declares that people construct their own version of reality. People's views of the exact same situation will differ according to how the different spectators view it. Furthermore, they will have a different opinion

on the meaning and significance of this situation depending on who they are, previous similar experiences they have had, and so on (Gray, 2004). In any situation, there are multiple constructions of the same phenomena, as each individual perceives in a unique way. From this perspective, everyone's construction is valid and deserves to be heard and will be unique to that situation, context and time (Appleton & King, 2002). Therefore, multiple realities exist which are not governed by the simple cause and effect natural laws as espoused in objectivist epistemology.

As a consequence, constructivist research promotes the interpreting of data for its richness, depth and complexity. People are seen as social animals and how they behave is interpreted within this social context. Constructivist research endeavours to understand the meanings which people confer upon their own and others' actions. From this viewpoint, research should not just quantify what is happening, but should interpret events and trends by understanding how the people involved understand their own experiences and interactions within a particular place, time and social environment; in other words, within a specific context. There is recognition that the researcher is also influenced by beliefs, value systems and meanings within the research situation. The researcher will have an effect on the research situation simply by being there.

Pragmatism is not committed to either of the two above opposing philosophical traditions (Phillips & Burbules, 2000). In fact, these opposing positions are seen as being irrelevant, as there is no final truth, only what is known at any moment in time. It rejects the either-or choices in the objectivist and constructivist traditions in favour of a middle ground flexible continuum (Teddlie & Johnson, 2009). Pragmatic researchers emphasize the research problem and use whichever research method will work best for the research question (Morgan, 2007; Teddlie & Tashakkori, 2009).

Pragmatism promotes practical problem solving and real world research (Morgan, 2007; Ikiugu, 2004; Phillips & Burbules, 2000). Pragmatic research is interested in what has happened or what has changed, as well as being interested in how a phenomenon developed. The goal of pragmatic research is its applicability to real life situations and its meaning to the participants. Pragmatic research is interested in the practical 'real world' of action and experience, rather than conducting research where findings have a hypothetical or theoretical application to the real world (Phillips & Burbules, 2000). Pragmatic truth is particularly suited to social science research which is concerned with the complexity and contradictions of people.

4.3 SOCIAL SCIENCE RESEARCH

'...social sciences are defined by their focus on decisional behaviour – actions by human beings and humanly created institutions... Thus, any social scientific explanation involves assumptions about why people do what they do or think what they think ... Social science is, of necessity, an interpretive act' (Gerring, 2007, p. 70).

4.3.1 Definition

Social science research is a way of exploring and analyzing human life. It attempts to ascertain causal connections and influences on human behaviour. New hypotheses are generated and existing hypotheses are tested (Gerring, 2007). It is not an exact science, like the physical sciences, as human beings are individual, complex, inconsistent and subject to events, encounters and environmental influences. Often the approach of social science is to study a small number of cases in depth for understanding, rather than using a large experiment which can be bewildering and difficult to analyze due to the complexity of dealing with real situations and real people.

Social science professions such as nursing, occupational therapy, physiotherapy, psychology, and social work share overlapping viewpoints and approaches which stem from their social science roots. Inter-disciplinary, developmental and comprehensive approaches are often needed

because of the complexity of social science research. In recent years there has been an upsurge in interest by governments and research granting bodies in investigating practical real world issues such as how people are disabled by their social and physical environments and what are the real life experiences and effects of the interventions which have been provided for them (Bowling, 2009). Bowling (2009) sees the investigation of functionalism (how the person is enabled or impeded from engaging in their full personal, social and economic roles in society) as being the main driver for social science research.

4.4 CASE STUDY

4.4.1 Definition

Case study is a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence (Robson, 1993, p. 5)

The most common use of the term 'case' associates the case study with a location, such as a community or organization. The emphasis tends to be upon an intensive examination of the setting (Bryman, 2008, p. 53).

The case study ... is defined as an intensive study of a single case (or a small set of cases) with an aim to generalize across a larger set of cases of the same general type (Gerring, 2007, p. 65).

A case study is a social science method of research (Yin, 2003). It is an intensive investigation of a specific environment or situation within its real-life context and often uses both quantitative and qualitative sources of evidence (Bryman, 2008, Robson, 1993). A case study is contained by a specific timeframe and by defined location boundaries (Gerring, 2007). It allows the researcher to focus on the detail of one or a small number of cases in order to provide richness and completeness. The intense scrutiny of the case study research can create insights which would

not be apparent to a researcher working with a larger population and in a fixed situation with preset variables and specific outcome measures (Gerring, 2007).

A case study can be exploratory, or it may strengthen or weaken a theory or idea. A case study is unique in its ability to explain how and why things come about over time (Bryman, 2008). It is the preferred strategy to answer how and why questions when the investigator is investigating complex 'real world' events. This usually means that the researcher is observing, rather than controlling, the events under investigation (Yin, 2003). A case study is good at analyzing the clear cut or proximal cause and effect relationships that happen between specific events (Gerring, 2007). Pilot studies are often case studies. Here ideas and hypotheses are developed with a view to further reproduction and investigation on a larger scale if warranted by the pilot study.

A longitudinal comparison case study is probably the most frequently used case study design (Gerring, 2007). This type of case study observes and reports on the effects of a specific intervention which creates change over time. In a longitudinal comparison case study, if more than one case is analyzed, all cases are classified as multiple instances of the same intervention, rather than each instance being treated as a different case. The data is collated and summed as one unit, rather than being broken down to distinguish and contrast between the cases. This is the format used for the findings in this thesis study.

4.4.2 Case Study and Representativeness

The purpose of a case study is to take the information gained and apply it to the broader world (Gerring, 2007). In other words, it must be representative, at least in some respects, of other similar situations in the wider world. Unless the case study can inform about this broader world, it has little purpose. This creates a tension around the ultimate aim of a case study. While

the fundamental purpose of the case study is to focus the investigation on a single case (Robson, 1993), the ultimate goal is to use the findings to understand something which is outside the case study itself (Gerring, 2007). This tension is resolved if the researcher makes sure that the cases within the case study are a true representation (in whatever ways might be relevant to the hypothesis or research question) of the wider world (Gerring, 2007).

The primary way of ascertaining the reliability of the case study is to replicate the study. For this to happen, the study must be made clear and operational (Yin, 2003). This will verify not just the findings but the conclusions and the context of its applicability to the wider world. There is always the possibility when there is only one case that something unknown has affected the conclusions (Yin, 2003). In contrast, if two cases are investigated in the same case study, the conclusions are unlikely to be affected by the same unknown factor. Therefore, if the findings are the same, this gives confidence to the research findings and their applicability to the wider world (external validity). The conclusions which arise from two cases will be more powerful than if they were from a single case only (Yin, 2003).

4.4.3 Case Study and Causality

A causal relationship is one where a 'causal factor' increases the probability that something else will happen (Gerring, 2007). The idea of causality is very important in a case study. A case study can investigate a causal link in a real-life situation which is too complex for experiments or surveys to understand fully (Yin, 2003). In a good case study, solid and supported inferences must be made about how environmental or situational changes generate an observed effect (Gerring, 2007) or how certain events are normally followed by other events. A case study explores this causality and how events are predictably followed by other events (Yin, 2003). A case study seeks

to apply this same causality to the wider world. The usefulness of the case study is therefore determined by how representative it is of this external world.

A good use of a case study is to investigate a process of change and the implications of this change. Unlike an experiment, a case study does not need to prove that only factor X causes the changes in Y. A case study allows for multiple antecedents for findings. A case study can investigate a specific effect, but it does not need to manipulate this causal effect (independent variable) to do so, as would happen in an experiment.

In a case study, the inferences made about causal factors must be explained through narrative description. This narrative has to make assumptions about the world and how it works. In a laboratory situation, these a priori assumptions are minimized and dispensed with in order to create an environment free of any perceived outside influences on the outcome. In a case study this rigor is not required. Instead, the research actively engages in a process of investigating and tracing all reasons for any changes observed.

In a longitudinal comparison study, measurements are taken before and after an event. The pre event observational readings are taken as a baseline which is compared to the new trend in the post event observational readings (Gerring, 2007). Inferences are developed about the events, or causal factors, which are understood to account for the variation in the findings.

4.4.4 Case Study, Methodology and Meaning

A case study is distinguished by an intensive and close focus on its subject, often using more than one research method in order to gain a deep understanding (Gerring, 2007). The researcher is required to give inferences and meaning to the findings, requiring interpretation and judgement

skills (Gerring, 2007). Convergent findings give confidence in the results, while divergent findings prompt the researcher to generate explanations, which also deepens understanding.

Having to analyze and harmonize different data streams is a safety mechanism for a case study. It means that the investigator is less likely to become overly involved in a single way of viewing the case. It also means that it is less likely that the researcher consciously or unconsciously constructs an unwarranted positive result. The data obtained by using a single methodology may be non-typical and may not truly represent the whole population. However, this is less likely if qualitative and quantitative methodologies are used to generate two or more independent data streams which will complement and balance each other to create convergence and insight into the overall analyses (Gerring, 2007).

4.5 MIXED METHODS RESEARCH

Rather than thinking of qualitative and quantitative strategies as incompatible, they should be seen as complementary (Malterud, 2001, p. 483).

This section of this chapter discusses mixed methods research methodology. The epistemology of mixed methods research strategy is described. This section concludes by identifying the advantages of this approach in the context of this research project. In this section a theoretical rationale is presented for mixed methods research outlining the complementary function of the qualitative and the quantitative data and how this augments and verifies research findings.

4.5.1 Definition and Rationale for the Use of Mixed Methods

Mixed methods can be defined as research where quantitative and qualitative techniques, methods, approaches, and concepts are used in a single study (Johnson & Onwuegbuzie, 2004). A

mixed methods approach recognizes the importance and value of each research tradition and how they can be combined to most effectively answer different questions, or different aspects of the same question. The philosophical root of a mixed methods research study is pragmatism (Johnson, Onwuegbuzie and Turner, 2007; Salehi & Golafshani, 2010). A mixed methods study is interested in what will answer a research question in a real world situation (Creswell, 2011).

There are good reasons for using both quantitative and qualitative methods in one research study. Each tradition adds to the sum total of the results (Sale, Lohfeld, & Brazil, 2002). The weaknesses of each tradition are covered by the strengths of the opposite tradition (see sections below), giving a more complete picture (Bryman, 2008; Johnson & Onwuegbuzie, 2004). When it is possible to bring both traditions together in a synthesis, knowledge is both augmented and improved. If independent measures reach the same conclusions, they provide a more certain understanding of the phenomenon (Jick, 1979). In addition, using different methods of obtaining research information eliminates the possibility of the outcomes being an artefact of the collection method itself (Jick, 1979). Robson terms this a 'reduction in inappropriate certainty' (Robson, 1993, p. 290).

4.5.2 Historical Context

Mixed methods research has emerged as a distinct and separate orientation in the last 20 years (Teddlie & Tashakkori, 2009). Mixed method study is becoming more common in the humanistic and social sciences (Salehi & Golafshani, 2010) In the UK, 18% of Health Services research (O'Cathain, Murphy, & Nicholl, 2007) and, internationally, 14% of occupational therapy published research were mixed methods based (Mortenson & Oliffe, 2009). Mixed methods give a broader, more pragmatic and comprehensive understanding of social issues and are appropriate

for social research. A pragmatic approach parallels how people solve problems in day-to-day life (Tashakkori & Teddlie, 2010).

In the past, researchers tended to use methodologies that belonged to either objectivist or constructivist epistemologies. Until fairly recently there was a perception that combining the two methods was incompatible. There was a view that when using either of the two methods on the same research question that they were not studying the exact same phenomena and that this made them incompatible (Sale, Lohfeld, & Brazil, 2002). Johnson and Onwuegbuzie (2004) describe the isolationist debate defending and criticising each of the two epistemological positions as the 'paradigm wars'. They termed the rationale for keeping the paradigms apart as the 'incompatibility thesis'.

However, this debate is becoming increasingly tedious and irrelevant (Bryman, 2008; Johnson & Onwuegbuzie, 2004) as there is a growing acceptance of the pragmatic position of using whichever methods are most able to answer the research question and of using a mixed methods research whenever this is most suitable. Rather than focus on the merits of one tradition over the other, a pragmatic approach values all approaches and contributions. Tashakkori and Teddlie (2010) describe a person lost in the wood with a mobile phone, compass and torch. Although each tool has a totally different purpose and is used in a completely different way, what person would throw out any of these tools for philosophical reasons? Any reasonable person would utilize all of the tools for their specific functions in order to get out of danger.

Furthermore, quantitative and qualitative research methods have never been as mutually exclusive as these theorists would suggest. For example, quantitative research will use narrative, a defining feature of qualitative research, to explain the meaning, significance and application of the research. Similarly, qualitative research uses quantitative concepts to count the number of

times a word or phrase appears in interview narratives. They use the quantitative concept of data saturation, where there is no new information forthcoming as a method of determining when their work is completed (Onwuegbuzie, Johnson, & Collins, 2009).

4.5.3 Benefits of Mixed Methods Research

Mixed methods research, because of its inclusiveness and flexibility, encourages creative thinking, cross-disciplinary collaboration, practical enquiry and evidence based practice (Brannen, 2005). Relying on just one research methodology leads to an important loss of potential knowledge and understanding, and adherence to a mono-method research is the 'biggest threat to advancement of the social sciences' (Onwuegbuzie and Leech, 2005, p. 375).

Quantitative research is the methodology for testing an explanation by measuring statistical difference and outcomes. However, when phenomena are not fully understood, then an exploratory qualitative methodology, such as the use of interviews, is appropriate (Phillips & Burbules, 2000). Combining the two methodologies can maximize the benefits and minimize the weakness of each tradition, as well as increasing the accuracy of the complete research project (Brewer & Hunter, 2006; Salehi & Golafshani, 2010). Different, but complementary information may be used to enhance interpretation of findings (Robson, 1993). For example, statistical findings are enhanced by a qualitative narrative account. Deeper insight and broader understanding are gained as a consequence leading to a more complete conclusion and resolution of the research question (Bryman, 2008; Halcomb & Andrew, 2009, Lipscomb, 2008).

In this thesis, quantitative research methods were used to test the hypothesis that providing an HMU will change the interactions and behaviours of those within the communal sitting areas. However, there was not adequate research knowledge to know which variables, or components, of the whole complex environments were able to account for this change. The interviews of staff

and relatives were able to give an understanding of how and why various environmental changes affected the findings. Using mixed methods allowed greater confidence and understanding of the findings (Phillips & Burbules, 2000).

In line with a social science framework, analyzing the different data streams enabled this thesis to give more comprehensive and more robust recommendations than if only one of the data streams were analyzed on its own (Tashakkori & Teddlie, 2010).

4.5.4 Triangulation and Complementarity

Triangulation describes a process of aiming for convergence (Mathison, 1988) or congruence (Thurston, Cove, & Meadows, 2008) in order to make an accurate conclusion about a social phenomenon (Mathison, 1988). Triangulation is a metaphor which comes from finding a single geographical position by measuring from three or more different reference points in geographical surveying (Jick, 1979). Brewer and Hunter (2006 p. 5) describe measurement using triangulation as trying to 'pinpoint the values of a phenomenon more accurately by sighting in on it from different methodological viewpoints'. When working towards convergence or congruence through the use of triangulation, the researcher is expected to be 'a builder or creator, piecing together many pieces of a complex puzzle into a coherent whole' (Jick, 1979, p. 608). Mathison (1988) emphasizes that using different research techniques is not likely to obtain perfectly complementary research information about a phenomenon. She believes the triangulation process allows the researcher a leverage upon which he or she can construct explanations about the social phenomenon under study. Research may show that there is an agreement, but it may instead show that there is a disparity with inconsistent or contradictory information (Mathison, 1988). Either way, explaining the results adds to knowledge.

The challenge of a mixed methods research study is to give equivalence to the strengths of both the quantitative and the qualitative data. This research study uses two complementary data streams, an observational study and an interview process, with separate data results. These complimentary data streams are combined to give more insight into the complex social environment of the communal sitting rooms of the two nursing homes than either method could do on its own.

4.5.5 Application of Mixed Methods Research to this Research Project

In this research study, the communal sitting rooms of the two nursing homes, both pre and post renovation, were explored. The quantitative data had at its focus the interactive occupation and social engagement behaviour of all the persons using the communal sitting rooms. Direct observation was chosen for this study as it provides precise information about what people are actually doing, not what they say they do which is a source for error (Frank & Polkinghorne, 2010; Robson, 2002).

The qualitative data complemented the quantitative data. A social environment is too complex to measure using quantitative measures alone. In this study, the environment was not defined purely in terms of the obvious physical renovations, but was expanded to include its social and organizational qualities. A wealth of information was obtained from the large number of management, staff and relative interviews, giving breadth and depth.

The observations gave pre and post renovation trends. The difference between these trends is a measure of change benefit between the Traditional Model Units (TMU) and the Household Model Units (HMU). The concrete, unambiguous, quantitative research outcomes provide a central focus around which the diffuse and subjective qualitative data can be gathered together and tethered. In this way confidence in the outcomes is enhanced.

This study sought to enhance validity by:

- (a) Making an extensive number of observations which allowed a significant numerical difference to be achieved in a consistent pattern across different, but related, domains.
- (b) Exploring the uniformity of data between two, not just one, nursing homes.
- (c) Establishing that the observational tool used for measuring the outcomes was reliable.

The internal validity of research is strong in experimental conditions, as exactly the same conditions and exactly the same manner will produce exactly the same results. The weakness of the experimental approach is that an artificial or laboratory situation may have little relevance to what happens in the 'real world' (Brewer & Hunter, 2006). In a truly experimental situation, the residents, staff and relatives would be brought into a laboratory situation, where one variable would be changed, its effects observed and the result recorded. Of course, people cannot be treated in this way. And even if they were, their behaviour would be affected dramatically, which would invalidate the results of the study. The experiment, therefore, loses applicability to a real life situation, to the real world 'out there'. In other words, whilst it may have high internal validity, it loses external validity.

This thesis research was undertaken in natural social environments. This makes it more likely that the results will have applicability to other similar situations (external validity) than a research experiment solely conducted in an artificial laboratory research environment, as people are behaving normally and there is a natural sequence of events. The weakness of this approach is the difficulty in controlling all the variables. For example, the design of the open plan communal sitting rooms in this study, both pre renovation and post renovation, were different. The staff training between the two units was not the same. And so on. The results will never be as precise as in a laboratory experiment. What is lost is the precision of a laboratory experiment, with

variables kept constant, whilst the research variable is altered and applied. What is also lost is the ability to run endless experiments under the same conditions and get the same results (internal validity).

In summary, a naturalistic real world study, such as this, records life as it is. This means it has greater applicability to a real world out there (external validity). However, while a natural environment can be analyzed it cannot be controlled easily. As a consequence of the variables which are not controlled (by definition, it is in a real world situation), precision is lost and outcomes will never be exactly the same. Whilst the experiment may compensate for the influence of variables, it is impossible to be able to compensate for, or even fully understand, all the possible influencing variables in a real world environment.

In contrast, the qualitative arm of this study offers an expanding horizon. Qualitative research looks for the experiences and opinions of people to verify a positive difference in the environment and in the behaviours of others. The qualitative inquiry in this research explored why the renovations were successful, how the changes impacted on the people using the communal living spaces of the units and what specific changes contributed most to the transformation of the unit milieus.

4.6 *OBSERVATIONAL METHODOLOGY*

This section discusses the quantitative arm of the mixed methods research in depth. It describes a philosophical framework which informs the quantitative research tradition. The chapter proceeds to outline the design of the quantitative research strategy. It describes the development of the observational tool and the snapshot observation technique utilized in this study. The categories of the observation tool are identified.

4.6.1 Interrupted Time Series Analysis, Quasi-Experiment and Natural Experiment

The intention of the quantitative arm of this thesis study was to utilize a method which could statistically prove or disprove the hypothesis that creating household nursing home environments for people with dementia would increase the observed interactive occupation and social engagement behaviours of the people using the communal living room environments.

In order to make this comparison, this research methodology employed an interrupted time series analysis (Robson, 1993). An interrupted time series analysis, such as this one, fits comfortably into a case study paradigm (Bryman, 2008). This type of analysis compares people or situations before and after an occurrence. In this thesis the time series comparison was between the TMU and the HMU.

All case study research is, more or less, quasi-experimental (Gerring, 2007). Gerring describes quasi-experimental research as ‘the most vigorous methodological defence for case study research design’ (Gerring, 2007, p. 152). Robson (2002) defines a quasi-experiment, or a natural experiment (Robson, 1993) as research located in field settings outside the laboratory and using naturally occurring populations and situations, rather than the randomly selected and randomly allocated populations of an experiment.

Quasi-experimental methodology is used to evaluate social interventions, organizational changes and other program changes (Bryman, 2008). It enables the evaluation of existing cohorts of people, without requiring the random sampling, control groups or identical cohorts required in classical experimental research design. In a ‘natural experiment’ the social setting is evaluated as it undergoes a ‘naturally occurring attempt to alter social arrangements’ (Bryman, 2008, p. 41). This means that the groups do not have to be proved to be equivalent.

Any conclusions of a natural experiment must be tentative as the quasi-experiment does not have the safeguards of the experiment. The group under study does not have a comparative control group and the environment is not rigidly controlled to prevent contamination from outside influences. On the other hand, this thesis research does have the benefit of using naturally occurring participants in their real world settings, which gives immediate applicability to other similar real world settings (external validity). The results of such quasi-experiments can be compelling because 'they are not artificial interventions in social life and because their ecological validity is thus very strong' (Bryman, 2008, p. 42).

Robson (1993), however, cautions against using a pre-test post-test single group where a single experimental group is pretested then tested again after an intervention. He states that the threats to the internal validity of the experiment are too great. These threats include:

- Other events, apart from the intervention, may be responsible for the change;
- There may be a normal maturation process of the group between measures; and,
- The populations scoring poorly on measures will tend to score better subsequently, purely as an artefact of random statistical reasons unconnected with the treatment.

To counteract these threats to validity Robson (1993) recommends using (a) a control group, (b) an interrupted time series design or (c) a case study methodology. This thesis has dealt with these threats to internal validity as below.

(a) This thesis did not have access to a control group. However, it did examine two nursing homes undergoing the same changes. The nursing home findings were similar, which is unlikely to happen by chance. This gives confidence that the findings were meaningful and resulting from the HMU changes, rather than being arbitrary and due to chance alone.

- (b) The research did not measure a select few beginning and end points, which would be subject to error. This study used an extensive data collection spread over a total of 52 days with 50 snapshot observations on each day. The resulting pre and post renovation trends are discussed in further in Chapter 5.
- (c) This thesis adopted a case study format which is able to provide an in-depth analysis of the two nursing homes. Within this format, it used mixed methods which provide complementarity and triangulation, thus ensuring that the findings were not as a result of the method.

4.6.2 Research Design: Using Proximal Outcome Measures

Outcome measures need to be meaningful (Beck, 2001) and to be directly related to (proximal to) the variables being measured (Schulz, 2001; Zarit & Leitsch, 2001). The more distal the relationship, the weaker the effect and the greater the possibility of confounding factors intervening which have more of an impact on the final outcome than the original variable being studied. Case study research generally investigates proximal causes (Gerring, 2007).

Zarit and Leitsch (2001) argue against using global and non-specific outcomes, such as improved well-being and change in emotional states, to measure changes. Quality of life indicators such as these are often indirectly (distally) affected by the independent variables under scrutiny. Emotional states vary from moment to moment and may have little to do with the environmental variables under study. For example, a person's emotional state may be a result of clinical depression, physical pain or interpersonal conflict, rather than any reflection on nursing home environment per se.

This research took the view that it was reasonable to expect that changing to an HMU would directly affect the measured amount of social engagement and interactive occupation of the

residents, staff and relatives in the nursing homes. This thesis argues that these are proximal outcomes to the renovations. In turn, states of well-being and changes in emotional states are proximal and dependent upon the levels of activity and interaction within a nursing home (Brooker, Woolley, & Lee, 2007).

Another reason for not using global emotional states and states of well-being is that they are complex to construe from observation, creating problems with reliability (Lawton et al., 1999, Schreiner, Yamamoto, & Shiotani, 2005) even with well worked out protocols such as those for Dementia Care Mapping (Thornton, Hatton, & Tatham, 2004).

The intention of this thesis study was to define and explore proximal variables, where there were strong links between interventions and outcomes (Schulz, 2001). The research protocol of this thesis investigated the direct link between environmental change and behavioural outcome measures.

4.6.3 Research Design: Principles of Focus

This research uses a multi-modal framework and builds on the advice of Zarit and Leitsch (2001), who encourage the use of both qualitative and quantitative approaches at the same time for research into dementia. Albert (2004) declares that observational measures, rather than proxy measures, are more likely to reveal the benefit of quality of life indicators. This being said, he argues that proxy reports of staff and relatives are important to ascertain whether or not the observed changes are pragmatically and clinically relevant in real life.

Teresi, Holmes & Ory (1994) recommend collecting data from several sources, on several occasions, using a multi-method approach, with direct observation given more weight than other sources of information in determining if change has happened. This thesis structures the research

around an interrupted quasi-experimental observational study, with numerous interviews to complement and expand on the statistical findings.

Measuring quality of life is especially complicated in a living environment with people who have communication and cognitive impairment difficulties, and in an environment which is affected by staff and family visitors. This thesis does not measure therapeutic change using self-report or proxy report, which can be difficult and unreliable (Smallwood, Irvine, & Connery, 2001).

This thesis follows the recommendations of Van Haitsma, Lawton, Kleban, Klapper, & Corn (1997) to concentrate on using a focused, rather than an all-encompassing, mode of inquiry. The outcomes can then be applied to relevant similar situations. Their specific recommendations were to confine the assessment to:

- (a) specific times of day or activity times
- (b) specific locations
- (c) certain behaviours.

The approach in this thesis research has complied with these recommendations by:

- (a) Recording only the behaviours in the two hour slot between meals (morning and afternoon sessions), and between the last meal and bedtime (evening sessions).
- (b) Excluding environments defined by care activity (bedrooms, bathrooms, toilets) and by focusing the observations on the people within the communal living room space.
- (c) Concentrating on interactive occupation and social engagement behaviours as outcome measures.

This research purposely restricts its enquiry in order to bring focus, clarity and depth to the undertaking. The utility of the assessment tool is in its sensitivity to change within these

constraints, with the outcomes being valid for these specific situations (Smallwood, Irvine, & Connery, 2001).

4.6.4 Demographic Information

It was probable that the cognitive and physical deterioration of residents would continue over the time between pre and post assessment. However, this was expected to be balanced by new admissions to the unit, with the abilities of the resident population remaining roughly equal. The dependency levels of the residents are discussed later in this section. This thesis research did not have the resources to provide in depth and multifaceted analyses of the residents.

Some residents, staff and family were the same post renovation. However, some residents were no longer in the nursing homes and their places had been taken by others. As a consequence their relatives were not asked for interview. In addition, some staff were no longer working in the unit, while others had changed their job description. For example, some former staff were now working as a home maker and as a household coordinator with some staff undertaking dual roles of home maker on some shifts and care worker other shifts. A senior manager in one nursing home had changed. It was beyond the scope of this thesis to be able to analyze the complexity of this information. Furthermore, the cases under study were not the individuals – residents, staff or relatives. The cases under study were the nursing homes themselves. Therefore, what was required was that the pre renovation nursing homes were generally representative of TMU nursing homes, while the post renovation environments were able to represent HMU environments. Whilst an experiment would demand that the resident and staff populations were matched and made to be as identical as possible pre and post renovation, in a case study this level of analysis and matching was not required.

There were 18 residents with dementia in the NH1 TMU and HMU observations. In the NH2 HMU there were 18 residents with dementia. However, in the pre renovation NH2, there were 17 residents with dementia and eight residents with acquired brain injury. These eight residents were in the unit on a temporary basis (respite) and they spent most of their time away during the day at a day centre or they remained in the private bedroom spaces. In terms of behaviour, they were indistinguishable from the residents with dementia. The researcher did not have access to patient records to reliably distinguish any individuals with acquired head injury. When the data was processed, it was not possible to reliably extricate the information which related to them alone. Therefore, their influence on the results of the observations is not precisely known. In research set under experimental conditions, this group of people would have been eliminated. However, in this real world study, this was not possible.

The effect of this greater number of NH2 residents pre renovation should have increased the pre renovation attendance statistics, thus making it more difficult to obtain a statistically significant difference when compared to the post renovation attendances. However, the pre renovation / post renovation difference was very similar to NH1, where there were 18 residents both pre and post renovation. The effect of the brain injury population was minimized due to the sheer weight of data and because they were often not in the room.

The nursing staff provided a statement of dependency levels for all of the residents with dementia only. There was a slight variation in dependency as seen in Tables 4.1 & 4.2 below. The dependency levels in these two nursing homes are similar to most other nursing homes in Ireland, as people with dementia who are able to care more for themselves are generally maintained in the community.

Table 4.1: NH1
Residents with Dementia:
Personal Care Dependency
TMU (n=18) HMU (n=18)

ADL DEPENDENCY	TMU	HMU
Eating	56%	44%
Dressing	67%	78%
Hygiene	94%	100%
Toileting	61%	78%

Table 4.2: NH2
Residents with Dementia:
Personal Care Dependency
TMU (n=17) HMU (n=18)

ADL DEPENDENCY	TMU	HMU
Eating	71%	33%
Dressing	100%	89%
Hygiene	100%	89%
Toileting	100%	89%

In NH1 TMU, 12 residents (67%) were dependent in getting dressed and 11 (61%) were dependent in toileting. In NH1 HMU, 14 residents (78%) were dependent in getting dressed and in toileting. The slight increase in dependency levels in NH1 was reversed in NH2. In NH2 TMU all 17 residents (100%) were recorded as being dependent in dressing and in toileting. In NH2 post HMU, 16 residents (89%) were dependent in getting dressed and toileting.

In NH1 and NH2 the changes in dependency levels were not large and were the result of recorded change representing the difference of only one resident's dependency level. This makes it difficult to draw any statistical conclusions, other than the dependency levels remained roughly the same.

However, there was one descriptive statistic which is particularly noteworthy. In NH1 the dependency levels were slightly increased post renovation. However, the Eating category was at variance with this trend and the dependency levels went down. A parallel phenomenon was noted in NH2. Here, there was a slight shift towards greater independence for all categories. However, in the Eating category this improvement was very marked, much more than with any other category. Taken together, these statistics suggest that there is a trend that is worthy of further investigation.

There are several explanations for the Eating category trend. They are:

1. The residents were more orientated to the eating task in the post renovation open plan area / kitchen, which may have enabled their greater independence.
2. Because of the open plan room, residents could take themselves to and from the dining room tables, rather than being shepherded by the staff. This greater level of independence may have affected their independent eating behaviours.
3. In the HMU's, the homemaker was always in the room. She was able to dedicate her time and attention to the residents and to assist them without making them dependent. Previously, in the TMU's, staff had to rush the residents in order to finish tasks elsewhere.
4. There may have been a change in staff ratings, rather than any real change in resident abilities. The staff ratings may have been positively affected by the more natural and homelike kitchen area where the residents gave the appearance of being more independent.

This research was unable to come to any reliable conclusion about this unexpected finding, as the aim of this thesis study was to investigate the main sitting room areas and not focus on the dining room. However, this unexpected trend is noteworthy and would benefit from dedicated research in the future.

4.6.5 Development of the Observational Tool and Snapshot Technique

This section describes the conceptualization and development of the Assessment Tool for Occupation and Social Engagement (ATOSE). This assessment tool was influenced by other observation tools which have been used to evaluate residents with dementia in nursing homes (Bowie & Mountain, 1993; Norbergh, Asplund, Rassmussen, Nordahl, & Sandman, 2001; Smallwood, Irvine, & Connery, 2001; Stabell, Eide, Solheim, Solberg, & Rustoen, 2004; Ward,

Murphy, Procter, & Weinman, 1992; Wood, Harris, & Snider, 2005). However, this thesis has several areas in which there are distinct differences.

While other research tools have focused on the residents, the intention of this research was to record a whole room environment, with all persons who were in the room who contributed to the 'home likeness' of the room. Staff interaction is important to record, as residents with dementia rarely interact on their own and rely on staff and others for stimulation (Nolan, Grant, & Nolan, 1995; Wood, Harris, & Snider, 2005). Although relatives and visitors were infrequent, they were important to record, as they brought stimulation and interaction into the room.

A snapshot observation technique (time sampling technique) was chosen as a mechanism of recording all persons within the room – residents, staff and relatives. An advantage of this method is that it is more anonymous and less intrusive than the continuous time sampling observational technique used by most other research, whereby individuals are followed and sequentially recorded for a set length of time before the researcher moves onto the next person. Being followed around the unit and being monitored for an extended period of time is very daunting and intimidating. It is likely that relatives and staff would feel uncomfortable and object to being under such scrutiny. This thesis argues that it is disrespectful to use this daunting procedure on vulnerable and dependent residents who are not in a position to complain.

The intention of this research was to focus on behaviour which was observable, rather than to try and conjecture emotional states through facial expression. Emotional states are held to be very personal in Western society. This thesis took the viewpoint that staff and relatives would probably be annoyed and patronized by a researcher labelling their emotional states, putting these down on record and then attributing them to environmental influences. This thesis took the

viewpoint that if this procedure was uncomfortable for relatives and staff, equally it should not be used for residents with dementia.

In addition, emotional states are complex to interpret and even with training these interpretations are subject to error (Lawton, Van Haitsma, Perkinson, & Ruckdeschel, 1999; Thornton, Hatton, & Tatham, 2004). Instead, this study recorded the whole room environment with everyone in it at each recording moment in time using visible behaviours that did not require judgments about private emotional states. The recording sheets and protocol were explained to any residents, staff and relatives who were interested.

4.6.6 Development of the ATOSE

The Assessment Tool for Occupation and Social Engagement (ATOSE) was designed to measure the observed behaviour of all persons in a communal room of a care environment: residents, staff and relatives. The categories of the assessment were identified, refined and trialed in conjunction with another occupational therapist, in order to create a checklist (Zeisel, 2006). The observational tool was developed over a three month period. Patients, staff and relatives were observed in a local day hospital environment, which was a location of convenience. Although not a nursing home environment, the day hospital had the behaviours which people exhibit in such environments: sitting, being active or inactive, mobilizing, talking and exchanging greetings, and so forth. There were patients and staff interactions and relatives coming and going. Furthermore, it was an easily defined space, with chairs situated around the wall. There were up to 20 people in the room at one time. In short, it was a good model for developing categories of behaviour and for working out the amount of time required to categorize each person. It was discovered that observing and marking a whole room environment could take a full five minutes if

the room had many people in it, so making observations every five minutes became the observational procedure.

A written protocol was developed to enable future consistency in the observation procedure and the categorization of the observed behaviours (Zeisel, 2006). The intention was to make an assessment tool which would be reliable, accurate and straightforward to complete. Robson (2002) recommends that the following qualities identified below are built into an observational tool:

- *Focused- looking only at carefully selected aspects of what is going on.* In the ATOSE only essential categories were used. These were in line with the main purpose of the assessment, which was to evaluate interactive occupation and social engagement time use.
- *Objective – requiring little inference from the observer.* When the room was full the raters had to be able to decide the relevant categories for people with speed in order to accurately record everyone in the room. The assessment tool was devised to allow easy and quick categorization of the selected behaviours. The tool was refined in the pilot project which enabled consistent interrater reliability of more than 90% at each trial.
- *Non context-dependent – category does not depend on a specific context.* The assessment tool had to be transferable as the pilot trial was in a day hospital with elderly patients with a wide variety of problems and the research itself was in nursing homes with people with dementia.
- *Explicitly defined and mutually exclusive – detailed definition of each category.* All categories were clearly defined (see Appendix 1). To aid clarification, a protocol was drafted (see Appendix 2). These guidelines were successful, as interrater agreement reached over 90% accuracy in all measures.
- *Exhaustive – covering all possibilities, so that it is always possible to have a category.* The categories were broad and comprehensive. The pilot project was used to develop these categories and to make sure that all observed behaviour fell into one or other categories. When the research was implemented, the researcher was able to code all observed behaviour.

- *Easy to record* – the assessment form is a series of tick boxes. Separate columns were created for the residents, relatives and staff and the categories were grouped in a coherent parallel fashion. Locating a box to tick was a quick, logical and straight forward process.

4.6.7 Content and Face Validity of the ATOSE

Face validity reflects the investigator's subjective assessment of the assessment form in terms of reasonableness, clarity, and relevance (Bowling, 2009). The previous section describes the efforts made by the researcher to create an assessment which was a logical and coherent observational assessment of behaviours in the communal sitting rooms of the nursing homes. It covered all behaviours comprehensively. The category descriptions were discrete and comprehensible, which allowed a very high interrater agreement. The relevance of the measures were evident in the observed lack of activity and participation observed in the TMU's.

Content validity refers to how a panel of people would assess the assessment form in terms of being logical and measures the domains comprehensively (Bowling, 2009). The ATOSE was given to a convenience sample of 10 occupational therapist and nurses who worked with the elderly. This panel made a number of recommendations, which were incorporated into the ATOSE. In general, the panel viewed the ATOSE as being comprehensive and its content sufficient for its purpose.

4.6.8 Categories of the ATOSE

The full version of the Assessment Tool for Occupation and Social Engagement (ATOSE) is given in Appendix 1, with the Marking Criteria located as Appendix 2. The detail of the full assessment form is not required for analysis in this thesis. Instead, many of the categories were aggregated to avoid confusion due to over complexity. For statistical analysis a smaller number of simplified categories have been used in order to aid clarity and understanding. These are the

same categories as those used for the statistical evaluations in the Chapter 5. Table 4.3 gives these simplified categories for the residents and Table 4.4 for the staff and relatives.

Table 4.3: Resident Category Descriptions (ATOSE)

TOTAL ENGAGED Grouping Category: combines the interactive and engaged categories.
(1) Social Engagement: both verbal and non-verbal interactive behaviour with another person (e.g. chatting, holding hands, or nonverbally attending to a conversation).
(2) Interactive Occupation: doing an activity, such as participating in a game or craft activity.
Independently Active was a subgroup of this category: interacting with the environment or with a task independently, without being guided by another person or being in an activity group (e.g. drinking a cup of tea, wiping down a table, reading a newspaper).
(3) Receiving Care: participating in a personal care interaction, involving staff or family, such as being helped to eat or drink.
TOTAL NON-ENGAGED Grouping Category: combines the non-interactive and non-engaged categories.
(1) Eyes Closed: observed with eyes closed (irrespective of being asleep or not, as both states indicate exclusion from, and non-interaction with, the external environment).
(2) Non-Active: eyes open but without any observed interaction with the environment or a person.
(3) Self-Stimulation and Agitation: repetitive, indiscriminate, or, without purposeful interaction (e.g. repetitively opening and closing a purse, pulling at one's clothing, or making continual indiscriminate vocalizations).

Table 4.4: Relative and Staff Category Descriptions (ATOSE)

TOTAL ENGAGED Grouping Category: combines the interactive and engaged categories.
(1) Social Engagement: verbal and non-verbal communication between staff and relatives to other staff and relatives or residents.
(2) Interactive Occupation: staff and relative interaction with residents, staff and family. Examples of interactive occupation were physically assisting residents with puzzles and looking at a magazine together. This category did not include work and care tasks described below.
(3) Providing Care: care behaviours, such as adjusting a resident’s clothing, assisting residents to drink, helping residents to mobilize, and providing calming measures to a resident experiencing agitation. This category is defined as a personal interaction and engagement with the residents, as opposed to being a scheduled routine or work task.
TOTAL NON-ENGAGEMENT Grouping Category: combines the non-interactive and non-engaged categories.
(1) Non-Active: staff or relative at rest, sitting or standing within the room and not engaged in any purposeful interaction. This category was rarely marked for staff and relatives.
(2) Work Task: professional, domestic, catering tasks, such as the distribution of medication, the writing up of notes, sweeping the floor and so on.
(3) Partnership: covered activities done in parallel with the residents, without giving the resident assistance. This might be eating a meal together or watching the same video with interest.

For ease of analysis, all categories were placed in two larger Grouping categories. The Total Engaged Grouping is composed of all interactive and engaged behaviours. These include the Social Engagement, Interactive Occupation and Receiving Care / Giving Care categories.

The second Grouping category was the Total Non-Engaged Grouping Category. For residents, this recorded non-interactive behaviours of the residents, such as passively sitting in a chair without purposefully interacting with the environment or another person (Passive Non-Engagement; Passive and Self-Stimulatory Behaviours). The Non-Engaged Grouping contained the

Work Task and Parallel Occupation categories, where relatives and staff were not directly engaging or interacting with the residents.

4.6.9 Observational Procedure

Observation is a rich and accurate source of data (Bowie & Mountain, 1993). Watching unobtrusively over many days provided an effective method of assessing whole room activity. This section describes the observational protocol for this research study.

During an observational session, a seat was selected from which to observe all persons within the room. The observer consistently chose the same unobtrusive position in order to blend into the background as a marginal participant (Zeisel, 2006). The researcher introduced himself to all residents, staff and relatives in the room. He continued to introduce himself and his research project to any new relatives who visited. However, he purposely declined any further opportunities for interaction with others in the room in order to focus on observing and recording the activities within the room and in order not to intrude upon and affect the dynamics of what was happening in the room. Interest in the researcher quickly subsided. Those present within the room did not seek interaction with him. This suggests that the two main strategies to minimize observer effects – minimal interaction and habituation (Robson, 2002) - were successful.

The snapshot observational method used in this thesis study involved visually scanning the room in a consistent pattern every five minutes, to gain a 'snapshot' of a moment in time, for all persons who were present in this 'occupational space'. A single tick (known here as a snapshot marker) for each person was recorded on the ATOSE form in the relevant category, in the appropriate staff, resident or relative column. Names of residents, care staff and relatives were not recorded in order to preserve confidentiality.

Making a snapshot marker for each individual was relatively straightforward when people were sitting. Some specific procedures had to be devised to ensure recording consistency when people moved around the room. A person was counted only once per snapshot recording, even if they moved back into the visual scan of the researcher. A person was not counted if they entered the room after the snapshot observation had started and the scan was moving away from them so that they were not part of the scan.

Although this method is modelled on a photographic instant in time, in actuality each snapshot observation took a variable amount of time, depending on the time it took to enter the relevant snapshot marker onto the observational form.

4.6.10 Narrative Observations

For most of the observations, there was a small amount of time left over to write a narrative description of what was happening within the room. If time allowed, a simple schematic representation of where people were sitting and what was happening within the environment could be quickly entered on the reverse of the paper. This process assisted the researcher in his understanding of what was happening within the room and how people were engaged and interactive. These narrative observations were references which could be consulted if there was a query with the statistical data or when an analysis was required to understand trends or minor discrepancies from the recorded trends in the data. The narratives reflected the social processes and the activities which were happening in the room. This gave insight into differences between the TMU and the HMU environments. The understanding of the dynamics within the room gave a depth to the discussions and interviews the researcher had with the staff and relatives. These insights helped to inform the conclusions and the discussions of this thesis.

4.6.11 Observation Days

Each observation day was four hours long broken into two equal segments around a meal break. Half the observation sessions were morning and afternoon sessions (10:00 – 12:00 and 14:00 to 16:00) and half were afternoon and evening sessions (14:00 – 16:00 and 18:00 – 20:00). These times were chosen pre renovation as being when staff and residents were most likely to be using the communal sitting rooms. The same time slots were used post renovation to be consistent for comparative purposes and to take account of the effect of time of day on behaviours of people with dementia in residential care (Haidet, Tate, Divirgilio-Thomas, Kolanowski, & Happ, 2009; Smallwood, Irvine, & Connery, 2001). The room was observed for two hour periods separated by a two hour gap. This prevented drifting in observations and recording due to stimulus fatigue (Haidet, Tate, Divirgilio-Thomas, Kolanowski, & Happ, 2009).

Pre renovation, NH1 was observed for four different weekdays over a two week period (16 hours). NH2 was observed for seven different days, including weekend days, over a six week period (28 hours). Post renovation, both nursing homes were observed for seven days over a six week period (28 hours each). The pre renovation observations were fewer in number for NH1 due to the early commencement of their building renovations. The time between pre and post renovation observation was 15 months for NH1 and 12 months for NH2. This time delay allowed residents, staff and relatives to become accustomed to the new environment, to eliminate any effects due to its newness.

4.6.12 Ethical Protocol

This research used the guidelines of process consent (Cantley, Woodhouse, & Smith, 2005; Dewing, 2004) to obtain consent from the residents in their own right, rather than proxy consent from relatives. Residents were introduced to the observer and a simple description of the purpose

of the research. Greetings were given to residents whenever the observer entered or left the room. The observer was prepared to stop the research process at any sign of discomfort or disagreement. This happened once and the resident became comfortable when shown that no names were recorded, allowing the observation to continue.

Unlike documenting observable behaviours, conjecturing someone's emotional state and recording it in a closed environment could easily be seen to be intrusive. Observing and recording the emotional state of residents, relatives and staff could lead to reasonable objections on two grounds. Residents, relatives and staff could regard such observations as being very private, as well as presumptuous and exploitative. In addition, residents, staff and relatives could legitimately query the accuracy of the conjectures and if they were being misrepresented. This research took an ethical positioning to record only observed behaviours and not attempt to record emotional states or states of well-being for residents, staff and relatives.

Strangers do not visit bedrooms and private spaces of domestic homes. Shields and Norton (2006) argue strongly that bedroom and hallway spaces in a household residence are private spaces. This research conformed to this ethical positioning. Residents were not observed by the observer in any private spaces; the observations were confined to the communal sitting rooms.

The research protocol received ethical consent from the University of Salford, in the United Kingdom, and the Healthcare Research Advisory Committee of the Dublin North East Region Health Authority, in Ireland.

4.7 INTERVIEW METHODOLOGY

This section discusses the qualitative arm of the thesis. It describes the philosophical and methodological frameworks which underpin this approach and outlines the qualitative research design and research strategy. It then discusses the participant profile and the ethical and confidentiality issues that were taken into account during the interview process. This section includes the research protocol, the research questions and a description of the interview analysis method.

4.7.1 Constructivism and Qualitative Research

There are many different ways of looking at how we gain knowledge about the world (epistemological stance). The qualitative arm of this research takes a constructivist view that people construct and, to some extent, choose their own realities. In qualitative research, everyone's construction is valid and deserves to be heard and will be unique to that situation, context and time (Appleton & King, 2002). Therefore, multiple realities exist which are not governed by simple cause and effect natural laws. Cause and effect deduction and measurement is not used (Frank & Polkinghorne, 2010). Instead, insight is gained by generating ideas and themes.

The interview process is not meant to represent the whole population and therefore techniques, such as random sampling, are not necessary. This allows people with specialist skills or abilities to be preferentially selected because of their specialist knowledge or abilities (Sale, Lohfeld, & Brazil, 2002). The strength of the qualitative approach is in its richness and depth of explorations and descriptions (Myers, 2000).

The success or failure of the HMU renovation, for this arm of the study, depends on the judgements of the staff and relatives as to whether the HMU environment created 'a life worth

living' (Zingmark, Sandman, & Norberg, 2002) for the residents and a better visiting and working environment.

4.7.2 Qualitative Descriptive Methodology

Caelli, Ray, & Mill, (2003) identify a growth in 'generic qualitative' research studies. These research methodologies are now one of the most common approaches undertaken by applied practice disciplines (Sandelowski, 2000), such as nursing and the allied health professions. This class of methodology has been variously described as: generic qualitative (Caelli, Ray, & Mill, 2003), interpretive descriptive (Thorne, Kirkham, & MacDonald-Emes, 1997), and qualitative descriptive method (Sandelowski, 2000; Sandelowski, 2010). These common methodologies are grounded in an interpretative orientation which acknowledges that experience is constructed by the person and by the context, but at the same time, it allows that there are experiences and realities which are shared between people (Thorne, Kirkham, & MacDonald-Emes, 1997).

Generic qualitative methods are less interpretive than other types of qualitative methodologies, such as phenomenology. This research uses Sandelowski's concept of qualitative descriptive methodology, which fits most precisely with the objectives of this qualitative research arm. This requires a detailed and nuanced interpretation which is 'data near' in approach to the reported thoughts and ideas of the interviewees (Sandelowski, 2010).

4.7.3 Professional Perspectives and Influence on the Research

In the TMU's, the residents sat in the sitting room areas staring into the centre of the room, or sleeping, with their chairs around the walls of the room. This experience was the catalyst for the development of the ATOSE. By choosing interactive occupation and social engagement as outcome measures, the success or failure of the units, as a research project, were tied into these values.

The perspective of the researcher needs to be clearly identified in qualitative research. Caelli, Ray, & Mill (2003) suggest that choosing the topic, the methodology and the theoretical perspectives are never a naïve choice, but come from the researcher's background. The researcher's own perspective is central in determining what is explored and how it is explored. It is important to make one's disciplinary allegiances explicit, because it signals likely theoretical positioning and ways of interpreting the data, arising from one's professional background and training (Caelli, Ray, & Mill, 2003). In this way the consumer of the research will have a fuller and deeper understanding of the meanings and implications of the research.

This research project is a reflection of the analytic lens of the researcher as an occupational therapist. The focus on whether an environment or situation enables or disables a person from occupation, involvement and interaction is shared by occupational therapists (Law, 1991). A positive research outcome was perceived to be an 'alive occupational space' (Hasselkus, 1998), defined by interactions, activities and events. This professional viewpoint determined the centrality of interactive occupation and social engagement at the heart of the interviews.

4.7.4 Qualitative Interview Research Protocol

This research study followed the verification strategy proposed by Morse, Barrett, Mayan, Olson, & Spiers (2002) for qualitative research. They recommend that participants must be those who have best knowledge of the research topic. In addition, there must be sufficient data to account for all aspects of the findings. This data collecting method ensures that there is replication in all relevant categories and that the 'replication verifies, and ensures comprehension and completeness' (Morse, Barrett, Mayan, Olson, & Spiers, 2002, p. 18) with the objective of 'increasing the scope, adequacy and appropriateness of the data' (Morse, Barrett, Mayan, Olson, & Spiers, 2002, p. 20). For the TMU's, this research sought interviews with as many interviewees

as possible from all staff who were currently working on the unit and all relatives who currently had a family member on the unit. For the HMU interviews the intention of the research was to explore the differences between the TMU and HMU environments. Only those staff and relatives who had experience of both the pre and post renovation environments were interviewed post renovation.

4.7.5 Interview Set-Up

For reasons of confidentiality, the researcher could not contact staff and relatives directly for interview. The TMU and HMU interviews were arranged by the nurse in charge of the units.

Pre renovation, the nursing managers of each nursing home sent letters (see Appendix 3) to inform next of kin about the observational arm of this research. Included in these letters was an invitation to the family to put forward a representative for interview. The reason for the interviews was explained. Whenever possible, the nursing managers discussed the interviews with relatives if they met them within the nursing home complex and encouraged them to attend for interview.

The staff were given written material about the study and were made familiar with the interview objectives by management at staff meetings. They were invited by the nurse manager to volunteer to be interviewed and arrangements were made by the nurse manager to provide staff cover for their absence.

Several full days were set aside to accommodate the interviews. In addition, times were used between the scheduled observation sessions. The nurse managers coordinated the interview roster.

4.7.6 Participant Profiles and Data Saturation

A good percentage (75%) of the TMU interviewees (n=47) made themselves available for interview in the HMU's (n=33). There were 25 TMU staff interviews with staff and 19 HMU staff interviews. There were 22 relative interviews in the TMU's compared to 14 in the HMU's. The interviewee population is described in Tables 4.5, 4.6 and 4.7 below.

Table 4.5: Staff and Relative Interviewee Numbers (NH1+NH2)

	Pre-Renovation	Post-Renovation	TOTALS
NH1 Staff	12	8	20
NH2 Staff	13	11	24
NH1 Relatives	10	7	17
NH2 Relatives	12	7	19
TOTALS	47	33	80

Table 4.6: Staff Interviews by Category (NH1 + NH2)

	Careworker / homemaker	Nurse	Activity / art instructor	Domestic	TOTALS
Pre renovation	14	5	3	3	25
Post renovation	13	4	1	1	19

Table 4.7: Relatives Interviews by Category (NH1 + NH2)

	Son / daughter	Wife / husband	Brother / Sister	Nephew/niece	TOTALS
Pre renovation	16	3	2	1	22
Post renovation	10	1	2	1	14

Although all staff and all family groups were invited to attend, it is likely that those who were most interested and committed to creating a better environment for people with dementia put themselves forward. Unless they were strongly opposed, persons who opposed the changes were not likely to put themselves forward. This was a limitation to this study. There is potential for the interview results to be more positive than if the interviews had been with a random selection. To partially counteract this, the interviewer gave each interviewee a long interview time and asked

probing questions, which allowed the interviewees to reflect on, for example, anxieties they may have for the new environment in the TMU interviews and on how the renovations had not reached expectations in the HMU interviews. Before the interview started the researcher made all interviewees aware that the information gained was confidential and that no individual would be identified.

By the end of the interviews the interviewees were covering the same ground and there was little additional new data. The replication of data in the interviews indicated that the objectives of data saturation had been achieved as little additional new data was forthcoming (Morse, Barrett, Mayan, Olson, & Spiers, 2002).

4.7.7 Structured Interview Questions: Procedures

In the NH2 Unit, the interviews were conducted in a nursing administration office some distance away from the Unit itself. In NH1, the interviews were conducted in a conservatory which was some distance from the main communal rooms. In NH1, there were rare interruptions from individual residents who wandered into the room, sometimes looking for their relative who was being interviewed. On these rare occasions the purpose of the interviews was outlined and they were included in the conversation until they chose to leave or the interview came to a natural conclusion.

4.7.8 Interview Questionnaires

The interviews were semi-structured. The interviewer had a list of questions to follow to provide a structure and framework for the interviews (see Table 4.8 and 4.9 below). The interviews were conducted so that either the interviewer or the interviewee could move beyond the questions to provide any relevant information about the physical, social, functional and operational environments.

The pre and post renovation questions were similar except that the TMU questions asked the interviewee to speculate about the effects of the changes, while the HMU questions ask about the effects of the changes in reality for the physical, social, functional and operational environments.

The HMU staff interview questions are given below in Table 4.8 below, while the relative interview questions are provided in Table 4.9.

Table 4.8: Interview Questions Staff

POST RENOVATION STAFF INTERVIEW
1. How much do you think the building work disrupted your day-to-day work?
2. Has the work you do changed? In what way?
3. If yes, has this change made your work more enjoyable?
4. Has the new layout made it easier or harder to do your work?
5. Has the new layout affected your sense of professional satisfaction about your work positively or negatively?
6. What is the purpose of your job role? Has this changed?
7. Has it make a difference in the daily routines in the Unit?
8. Have the types of activities done with residents changed?
9. Do staff interact differently with <u>residents</u> as a result of the renovations?
10. Do you think staff interact differently with <u>relatives</u> as a result of the new building layout? Is this a positive or negative effect on sense of partnership?
11. In your opinion, how have the renovations affected the <u>residents</u> ? What have you observed?
12. How have the renovations affected the <u>relatives</u> ? What have you observed?
13. Have the renovations affected <u>staff</u> (positive or negative).
14. What things limit the time you spend doing activities?
15. What things limit the time you spend chatting and interacting with residents and relatives?
16. What things limit the time you spend doing activities with residents?
17. What things limit the time you spend in partnership with relatives doing activities with resident(s)?

Table 4.9: Interview Questions Relatives

POST RENOVATION RELATIVES INTERVIEW – CHANGE
1. How much did the building work disrupt your visiting?
2. Have your visits become different after the renovations? How?
3. Has it made a difference to how often you visit? How often do you visit now? Is your visit more or less enjoyable?
4. Have the renovations made the unit more or less comfortable to visit? Do you feel more or less 'at home' in the unit?
5. Has the layout change made it easier to visit?

6. Do you do different things now when you visit that you didn't do before? Are there some things that you don't do now that you did before?
7. What is the purpose of your visit? How do you describe your role?
8. What sorts of things do you do with the person you visit? How important is it that you do things with the person you visit?
9. In your opinion, what sorts of activities are important for people with dementia? If so, how do they help?
10. How has the change in layout affected the way that staff, other relatives and residents interact?
11. What things limit the time you spend doing activities with the person you visit?
12. What things limit the time you spend chatting and interacting with the person you visit / others on the unit?
13. What things limit the time you spend doing activities with the person you visit / others on the unit?
14. What things limit the time you spend chatting and interacting with the person you visit / others on the unit?

4.7.9 Qualitative Research Analysis

The interviews were digitally recorded, and then transcribed verbatim. The transcribed interview data was copied into the NVivo 8 software programme and coded, line by line. The data was then placed under various nodes (categories) in the programme. By going back and forth between the text and the categories (constant comparative method) categories (nodes) were altered and changed. Themes started emerging and these categories were grouped according to larger categorical associations. A comprehensive narrative voice representing the interviewees emerged for each theme, giving understanding and meaning to the data.

During the quantitative observational arm of the research, analytic notes gave the opportunity of drawing sketches of where people were and what they were doing. The contemporaneous notes recorded insights and real world understanding of how the people within the environment were acting and interacting and how they were influenced by events and operational policies. Over the observation period, it allowed an impression to be built up of the whole room environment, looking at patterns and inconsistencies in behaviours and events. These ideas and insights were brought into the interview room at appropriate junctures and tested by asking the

views and responses of the interviewees. Also, by interspersing the interviews contemporaneously with the observational sessions, there was a constant back and forth stream of analysis and understanding which was brought into the interviews (Thorne, Kirkham, & MacDonald-Emes, 1997).

4.7.10 Ethics and Confidentiality

At the start of the interviews a statement of confidentiality was read to the interviewee (see Appendix 3). This confirmed that the interviewee had received enough information, verbal and written, that they were free to refuse to take part at any point, that all information was to be kept confidential, that any information published, written or verbal would be anonymous, and that they could refuse to have the interview recorded or could stop the recording at any point. All interviewees consented to proceed and did not request that the recording or the interview be terminated before its natural conclusion.

Some interviewees may have been apprehensive about bringing some personal or deeply felt issues into the interviews. Although the interviewer sought explanation and clarification of issues, interviewees were never pressed for answers. No interviewee felt compromised or under pressure.

Each person's interview data was given an identifying code and was stored securely under this code. The code key which identified the interviewees by name was stored separately.

4.8 CHAPTER SUMMARY

This chapter has described the main pragmatic approach of this thesis which used mixed methods research. The main methods of the study were presented in detail. The observational procedure was described, along with the ATOSE observational tool devised for the observations.

The interview process was also described and the profile of the interviewees was given. Confidentiality and ethical issues were presented and discussed.

The quantitative arm of the research was able to determine if creating a household environment created a better living environment for the residents, a better working environment for the staff and a better visiting environment for the relatives. This quantitative data is presented in the next chapter, Chapter 5.

The qualitative data is presented in Chapters 6 & 7. These chapters give insight into how and why specific components of the environment created the changes recorded in the observational data.

CHAPTER 5: QUANTITATIVE OBSERVATIONAL

DATA

This section of the thesis moves from the descriptive and theoretical discussion of Chapter 4 to the analysis of the statistical outcome measures. The independent t test is used to evaluate the Assessment of Occupation and Social Engagement (ATOSE) category findings, which compare the Traditional Model Unit (TMU) and the Household Model Unit (HMU) environments. Results are presented and interpreted for the residents, staff and relatives. Charts are presented, which demonstrate the implications of the quantitative findings. Inferences are made about how environmental components have produced the changes in the outcome measures.

For ease of use, the first nursing home assessed was given the name of NH1. The second nursing home was called NH2. A detailed description, including photographs, of the TMU and HMU environments are given in the Interview Chapters (6 & 7). The Discussion and Analysis Chapters (7 & 8) unite the data from the quantitative and qualitative chapters, and are followed by conclusions in Chapter 10.

5.1 INTRODUCTION

Direct observation of human behaviours is a useful way of obtaining data. This research recognizes the difficulty in obtaining good quality and in-depth reports from the residents, who have significant levels of disability due to their dementia. Observational techniques are a way of getting a representation of the experience of the residents, who have difficulty reporting their experiences (Van Haitsma, Lawton, Kleban, Klapper, & Corn, 1997).

In addition, observation offers 'real world' information about what is actually happening in an environment, as opposed to what people are saying is happening in that environment (Gray,

2004). This thesis sets out to understand how the change process, involving the physical, social and operational environments of the nursing homes, can create the differences between TMU and HMU environments.

This quantitative data presented in this chapter provides a solid foundation to this thesis. It determines if the change process was successful or not, in terms of interactive occupation and social engagement outcome measures, and by how much. The change process is defined as a multi-component intervention. However, quantitative data does not give insight into how changes occur, but only that change has occurred. Qualitative data is required to explore and gain insight, and this is covered in Chapters 6 & 7 and in the Discussion and Analysis Chapters 8 & 9.

It was hypothesized that the conversion from a TMU to a HMU communal living space would change the levels of interactive occupation and social engagement for residents, staff and relatives. As each person within the room, whether resident, staff or relative, contributes to the activity and social interaction of that room, a research protocol was required which could quantitatively measure a whole room environment, in order to include these three different groups of people. If there was an underlying dynamic or change process which differentiated the traditional from the household environments, then a similar change would be expected in data results in both nursing homes, redefining the TMU environments as institutionalized spaces and the HMU environments as occupational spaces.

5.1.1 Data Confidence and Reliability

This chapter will show that both nursing homes had similar outcome data, which gives greater confidence in the data and its implications than one result on its own (Yin, 2003). Because the two nursing home data streams were so similar, this research uses combined data to describe both nursing homes, rather than to discuss each of the nursing homes separately.

The challenge with observational research is to ensure observational reliability, with the researcher(s) observing and recording the same phenomena (Gray, 2004). Ensuring the notational system is easy, quick and mutually exclusive is a way of avoiding errors. In this research study, the protocol (discussed at length in Chapter 4 and attached in Appendix 2) details how each person in the room was observed and marked on the Assessment Tool for Occupation and Social Engagement (ATOSE) form once only in each snapshot observation period. This data was then aggregated on a daily basis and entered into the SPSS 17 statistical programme. The results are given below.

A high level of interrater agreement gives confidence that the main observer is marking the behaviour consistently and correctly (Salkind, 2011). It also confirms that the protocol creates enough distinction between the categories to allow accuracy and consistency. In this research, the interrater reliability was provided by one of two experienced occupational therapists independently recording one 2-hour session of each TMU and HMU sequence in parallel with the main researcher. The interrater used the two hour session immediately prior to the interrater session as a practice session in order to become familiar with the marking and to establish consistency and precision. The approach of Smallwood, Irvine & Connery (2001) was adopted for obtaining an interrater coefficient (total number of times both observers agreed for that session divided by the total judgments made by the two independent observers). The results indicated a good level of interrater reliability: NH1= 91.1% pre renovation and 90.1% post renovation; NH2 = 98.2% pre renovation and 90.3% post renovation.

5.2 INDEPENDENT SAMPLES T TEST DATA

The snapshot marker data in Tables 5.1, 5.2 and 5.3 were analyzed using the independent samples t-test of the SPSS 17 statistical package. As discussed in the Methodology Chapter (4),

not all HMU residents, staff and relatives were the same as in the TMU's. Therefore, the TMU and HMU were considered to be independent populations for statistical purposes.

It is advisable to use parametric tests whenever possible, rather than using non-parametric tests (Robson, 1993). They are more efficient at detecting significant differences with smaller sample sizes. There is a greater range and variety of tests available. Even when there are violations of the normality of their distribution, they are most often still robust (Robson, 1993). In this thesis research project the mean for most outcome categories was at least two or three times the value of the standard of deviation (s.d.) for most of the data. This indicates that the distribution of means was not unacceptably skewed. This non-skewedness of the data meant that it was considered safe to use the parametric independent samples t test for the analysis (Robson, 1993).

In Table 5.1 below, the resident daily mean data, which represents the average of the total snapshot markers for each day, demonstrates a significant post renovation increase in many categories. These results were highly significant ($p \leq .001$). The residents in the household model (HMU) used the communal living areas more (Total Resident Markers); they were more socially engaged (Social Engagement); they were more interactive with their environment (Interactive Occupation); and they were more independently interactive (Independently Interactive).

The daily mean increased substantially for all resident Engaged Grouping categories (Social Engagement, Interactive Occupation, Engaged & Interactive, and Independently Interactive). Residents were more often in the room and were more interactive and more engaged when they were there. This important information will be explored more fully later in this chapter with the aid of charts.

Table 5.1: Independent t Test Results of Resident Daily Mean Snapshot Markers Comparing TMU with HMU

Category		NH1			NH2			NH1+2		
		mean	s.d.	Sig (2-tailed)	mean	s.d.	Sig (2-tailed)	Mean	s.d.	Sig (2-tailed)
Total Resident Markers	TMU	355.3	32.5	.000***	515.6	70.7	.020*	457.3	99.3	.000***
	HMU	566.7	21.5		606.0	54.5		586.4	44.7	
ENGAGED & INTERACTIVE	TMU	103.3	29.3	.000***	114.4	28.8	.000***	110.4	28.1	.000***
	HMU	245.3	24.4		241.1	33.3		243.2	28.1	
Social Engagement	TMU	35.3	14.5	.028*	20.4	8.0	.002**	25.8	12.5	.000***
	HMU	68.7	22.7		47.0	16.4		57.9	22.1	
Interactive Occupation	TMU	63.0	22.2	.000***	81.9	26.4	.000***	75.0	25.6	.000***
	HMU	164.9	21.6		178.1	32.0		171.5	27.1	
Independently Interactive	TMU	51.0	21.2	.000***	73.9	22.1	.000***	65.6	23.7	.000***
	HMU	144.3	25.2		162.3	37.6		153.3	32.1	
Receiving Care	TMU	5.0	2.2	.054	12.1	4.6	.306	9.6	5.2	.110
	HMU	11.7	5.7		16.0	8.4		13.9	7.2	
TOTAL NON-ENGAGED	TMU	252.0	38.5	.006**	401.1	59.2	.244	346.9	90.6	.893
	HMU	321.4	26.4		364.9	51.3		343.1	45.2	
Non-Interactive	TMU	136.5	16.6	.001**	246.3	75.2	.656	206.4	80.9	.832
	HMU	191.1	20.1		231.9	36.5		211.5	35.3	
Eyes Closed	TMU	109.0	27.7	.734	110.9	54.2	.709	110.2	44.7	.886
	HMU	103.9	20.9		121.1	46.3		112.5	35.6	
Self Stimulation	TMU	6.5	7.6	.066	44.0	32.3	.027*	30.4	31.6	.257
	HMU	26.4	17.8		11.9	9.8		19.1	15.8	

*p<.05, **p<.01, ***p<.001

In many cases the HMU daily variability, as measured by the standard deviation (s.d.), stayed the same or decreased when compared to the TMU findings. There was less daily variability in the categories of Total Resident Markers, Engaged & Interactive, Interactive Occupation and Non-Engaged categories. This indicates that, these category behaviours became more consistent, with less daily fluctuation.

In Table 5.2, the staff data demonstrated a significant post renovation increase in the Total Relative Markers, Engaged & Interactive, and Social Engagement categories (p<.001). These categories indicate that staff working in the household environments were more often in the room and they spent more time talking and interacting with residents. This was a good outcome for the household model and was consistent across both nursing homes.

Table 5.2: Independent t Test Results of Staff Daily Mean Snapshot Markers Comparing TMU with HMU

Staff Category		NH1			NH2			NH1+2		
		mean	s.d.	Sig (2-tailed)	mean	s.d.	Sig (2-tailed)	Mean	s.d.	Sig (2-tailed)
Total Staff Markers	TMU	54.3	9.5	.000***	51.1	13.2	.000***	52.3	11.6	.000***
	HMU	107.3	7.5		116.3	11.8		111.8	10.6	
ENGAGED & INTERACTIVE	TMU	25.3	12.9	.000***	27.6	16.0	.000***	26.7	14.4	.000***
	HMU	68.9	11.6		67.4	10.4		68.1	10.6	
Social Engagement	TMU	13.3	9.0	.000***	12.3	7.2	.000***	12.6	7.5	.000***
	HMU	42.9	7.6		38.6	7.1		40.7	7.4	
Interactive Occupation	TMU	6.0	8.8	.236	5.4	8.7	.216	5.6	8.3	.062
	HMU	13.9	10.4		12.0	10.1		12.9	9.9	
Care Task	TMU	6.0	3.7	.182	9.9	5.6	.124	8.5	5.2	.056
	HMU	12.1	7.9		16.9	9.7		14.5	8.8	
TOTAL NON-ENGAGED	TMU	29.0	12.3	.103	23.6	6.9	.000***	25.6	9.0	.000***
	HMU	38.4	5.2		48.9	8.4		43.6	8.6	
Work Task	TMU	26.5	12.0	.054	21.1	8.1	.000***	23.1	9.5	.000***
	HMU	37.3	4.2		48.0	7.8		42.6	8.2	
Non-Interactive	TMU	2.5	1.7	.293	2.4	2.2	.118	2.5	1.9	.051
	HMU	1.1	2.0		0.9	1.2		1.0	1.6	

*p≤.05, **p≤.01, ***p≤.001

There were far fewer snapshot markers for the relatives, as they were less frequently in the communal sitting areas. The data showed a great deal of variability, with some days having few relatives and some having many more. The variability and the low numbers meant that the data did not achieve significance. The independent t test analysis is considered unreliable when the standard deviations are approximately equivalent to the means, as with the relative data. However, it was decided to include the data in this format, in order to aid comparison with the previously presented data on the residents and the staff.

The Engaged and Active Grouping category was the only category to reach significance (p≤.05). The Total Relative Markers and the Interactive Occupation categories came close, but did not reach significance.

Table 5.3: Independent t Test Results of Relative Daily Mean Snapshot Markers Comparing TMU with HMU

Relative Category		NH1			NH2			NH 1 + 2		
		mean	s.d.	Sig (2-tailed)	mean	s.d.	Sig (2-tailed)	Mean	s.d.	Sig (2-tailed)
Total Relative Markers	TMU	15.0	12.0	.29	15.9	11.1	.17	15.6	10.9	.07
	HMU	27.7	20.3		29.6	21.9		28.6	20.3	
ENGAGED & INTERACTIVE	TMU	14.3	11.8	.32	12.4	8.6	.09	13.1	9.3	.04*
	HMU	26.0	20.1		26.3	17.8		26.1	18.2	
Social Engagement	TMU	11.0	7.9	.36	11.3	9.0	.22	11.2	8.2	.11
	HMU	20.0	17.3		20.1	15.7		20.1	15.9	
Interactive Occupation	TMU	2.3	3.9	.45	0.9	0.6	.05	1.4	2.3	.09
	HMU	5.9	8.5		4.1	3.9		5.0	6.4	
Care Interaction	TMU	1.0	1.2	.10	.29	.49	.43	.55	.82	.52
	HMU	.14	.38		.57	.79		.36	.63	
TOTAL NON-ENGAGED	TMU	0.8	1.0	.41	3.4	4.5	.96	2.5	3.8	.98
	HMU	1.7	2.1		3.3	7.0		2.5	5.0	

*p≤.05, **p≤.01, ***p≤.001

The next section of this chapter builds on the independent t test data. The information is given in visual chart form. Some charts demonstrate groupings of data results which indicate daily baseline trends for the TMU's, and separate baseline trends for the HMU's. These charts are a visual indicator of how the experience of being in the HMU environment was different from the experience of being in the TMU.

5.3 MULTI-COMPONENT CHANGES TO THE ENVIRONMENT

The aim of this research was to study the effect of the change from a TMU to an HMU on the interactive occupation and social engagement of people in the communal areas. This section of Chapter 4 will focus on the experience of the residents. These are the most important results.

If change in outcome measures was going to occur, it would have to be as a result of the various environmental changes which together created the household model of care and which are classified as a single multi-component intervention. A very brief introduction to each of the important environmental change components is presented below, in order to give the reader a context to understand the findings of the observational data.

5.3.1 Traditional Design (TMU) versus Open Plan Design (HMU)

The HMU's were physically different from the TMU's. The communal sitting areas were made open plan, with sofas and integrated dining room with tables and chairs. A functioning kitchen unit was prominently placed in both open plan areas.

In the TMU's, residents sat in the communal sitting rooms with their backs to the wall. They waited passively for something to happen, such as the provision of a meal, service from the tea trolley or stimulation from the activities coordinators, and were often staring into space or sleeping. In contrast, within the HMU environment, residents were significantly more likely to make use of the main shared spaces (Table 5.1, $p \leq .001$), were significantly more likely to be occupied and socially engaged (Table 5.1, $p \leq .001$), and to be self-initiating activity ($p \leq .001$, Table 5.1). Because the layout of the HMU furniture was less rigid, this encouraged spontaneous interactions between residents, staff, and family visitors such that residents could be observed looking at books and newspapers, going to the kitchen to ask for a cup of tea, polishing tables or collecting plates. Importantly residents themselves initiated this activity by, for example, moving from the sofas to the tables due to the motivating sights, sounds and smells of food preparation, or of a craft activity being run in the dining area. This spontaneity was not observed in the TMU's.

5.3.2 Institutional Routines versus Flexible Unforced Routines

In the TMU's, the staff worked under rigid time guillotines which were dictated by the arrival of food from the centralized kitchens. In contrast, the HMU kitchens meant that food could be kept warm or cooked as required by the resident. This allowed resident choice, for example, getting out of bed at the times that suited their lifestyles rather than at the convenience of the nursing home.

The success of the HMU's depended on instituting operational changes. The homemaker was a new post, partly funded through redeployment of man hours from the central kitchens. By creating a homemaker role which was defined by the kitchen and domestic tasks, the post was operationally anchored into the kitchen and occupational space. Having the homemaker always present in the kitchen area meant that staff, operationally, were relieved of the pressure to have all residents in one place at one time for meals. Residents could get up at the times of their choosing or return late from the hairdresser and food was still available. Time guillotines dictated by centralized kitchens were eliminated and staff were able to work more flexibly with the residents. The kitchens were strategically placed within the open plan space, in order to give the homemaker good visual access to the whole open plan area. The homemaker was able to provide a continuous monitoring presence in the open plan area, relieving other staff of this duty.

The research showed that within the TMU environment residents rarely conversed with each other, but depended primarily on staff for social interaction. By giving the homemaker a defined role and the time in which to do it, HMU residents benefitted from significantly increased social engagement (Table 5.1, $p \leq .001$). The provision of food and drink is a natural route for social engagement. All but the most impaired residents were easily engaged by the homemaker. They welcomed and cooperated with the homemaker, which engendered spontaneous conversation. This confirms the findings of Nolan, Grant and Nolan (1995), who recommend redefining staff roles as a means of increasing social communication with residents.

5.3.3 Task Accomplishment versus Person Centred Care and Choice

The operational policies and design renovations created a change in the culture of the HMU's. The work culture of the staff also had to shift from an emphasis on task completion to a more personal and individual interaction with each resident. Within the HMU, residents were offered

choice, and no longer had to experience the institutional 'round up and march' into the dining rooms orchestrated by the staff. As the tables were in sight, many residents could choose to make their own way to the dining tables when the meals were about to be served. Staff facilitated resident choice around getting up times and breakfast times and the functioning kitchens allowed this accommodation. Residents were no longer 'tasks to be accomplished' by a set time, but became persons who had preferences and abilities.

Previously the residents in the TMU's were disengaged from their environment and spent 70% of their time in occupational disengagement, staring into space or sleeping (Morgan-Brown, Ormerod, Newton, & Manley, 2011). The HMU residents became more involved in active occupation and social engagement, and most importantly, they initiated more activities for themselves (Table 5.1, $p \leq .001$). The environment became more stimulating and accommodating for them, empowering them to undertake activities independently, rather than waiting passively for staff to initiate activities or move them from one room to another. Personhood was extended by the more enabling environment, where residents could choose to initiate their own activity and to participate in interactive occupation and social engagement.

The two nursing homes had different building layouts and both devised separate design solutions for these. Both nursing homes had slightly different operational practices. In spite of these differences, the improvements in the resident Total Engaged, Social Engagement and Active Occupation categories gave similar, very highly significant, positive results. In addition, there was a common clustering in both the TMU and the HMU results. These findings point towards underlying trends which define the experiences of being in the TMU's as being different from living in an HMU.

5.4 RESIDENT CHART OBSERVATIONAL DATA

The HMU environment was associated with highly significant changes in resident behaviour for both nursing homes. Residents spent more time in the household communal living areas. They spent this time being more socially engaged, being more interactive with their environment and doing more for themselves.

Residents spent much more time in the HMU living room environments than they did in the TMU environments (Table 5.1). The combined daily mean of the Total Resident Markers category increased from 457.3 to 586.4 snapshot markers. There was less fluctuation in daily room attendance as shown by the combined standard deviation (s.d.) reducing from 99.3 markers in the TMU's to 44.7 markers in the HMU's. In other words, there was more use of the HMU communal areas ($p \leq .001$) and there was less variation in the attendance in these spaces.

The Engaged & Interactive Grouping category is a composite category of the Social Engagement, Active Occupation and Receiving Care categories (Table 5.1). This grouping category increased significantly ($p \leq .001$), reflecting the significant changes of the NH1 & NH2 categories: Social Engagement ($p \leq .001$), Interactive Occupation ($p \leq .001$) and Independently Active ($p \leq .001$).

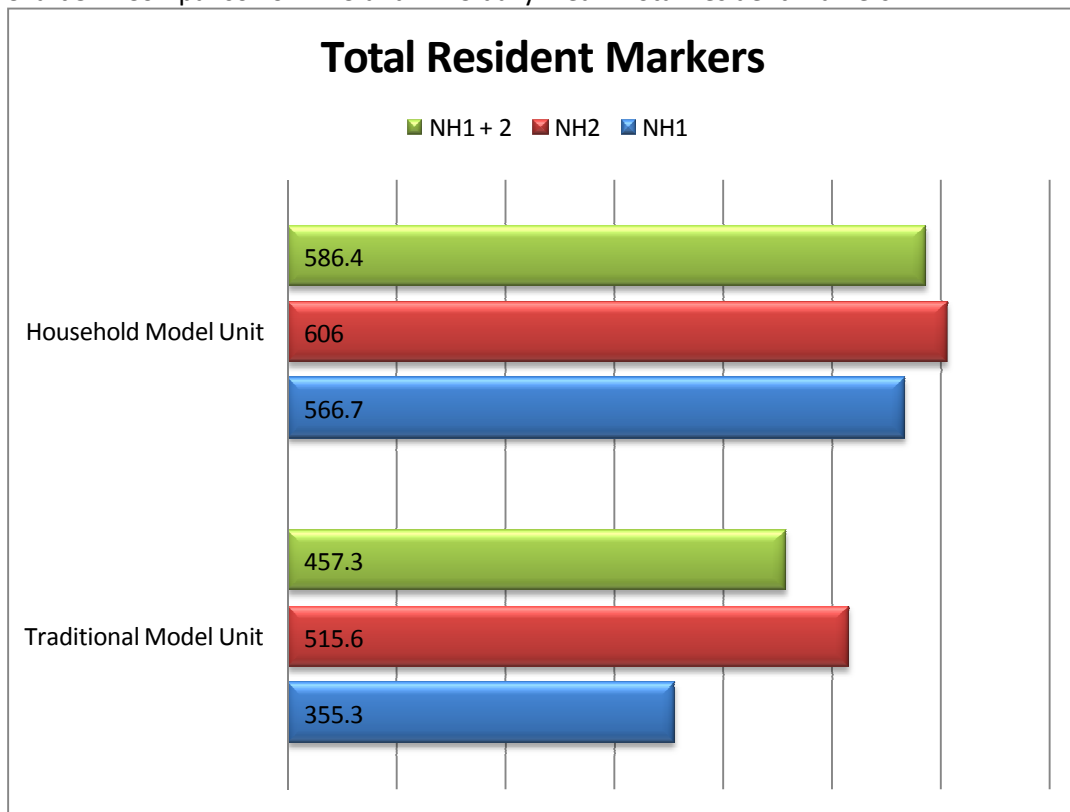
Conversely, most of the results for the Total Non-Engaged Grouping categories did not reach statistical significance (Table 5.1). The two exceptions for NH1 were in the Total Non-Engaged Grouping category ($p \leq .006$) and the Non-Active category ($p \leq .001$). NH2 had a significant drop in the Self-Stimulation and Agitation category ($p \leq .027$). These results were not significant when the data from both nursing homes were combined together and are not analyzed further here.

Chart 5.1 compares the TMU and HMU snapshot markers denoting resident time spent in the communal sitting rooms. Residents spent more time in the HMU than in the TMU communal

sitting areas. The TMU daily mean of NH1 was much lower than NH2. However, the NH1 and NH2 HMU daily means were close. There are two explanations.

1. The NH1 TMU sitting room was unusually small with fewer people using it. Residents may have avoided the room, creating this greater difference in the NH1 findings.
2. Five residents with head injury were in the NH2 TMU and this increased the Total Resident Markers as a consequence. The change between the TMU and HMU was still sufficiently large to be statistically significant, but would have been even greater if there had been only 18 residents with dementia in the TMU.

Chart 5.1: Comparison of TMU and HMU daily mean: Total Resident Markers

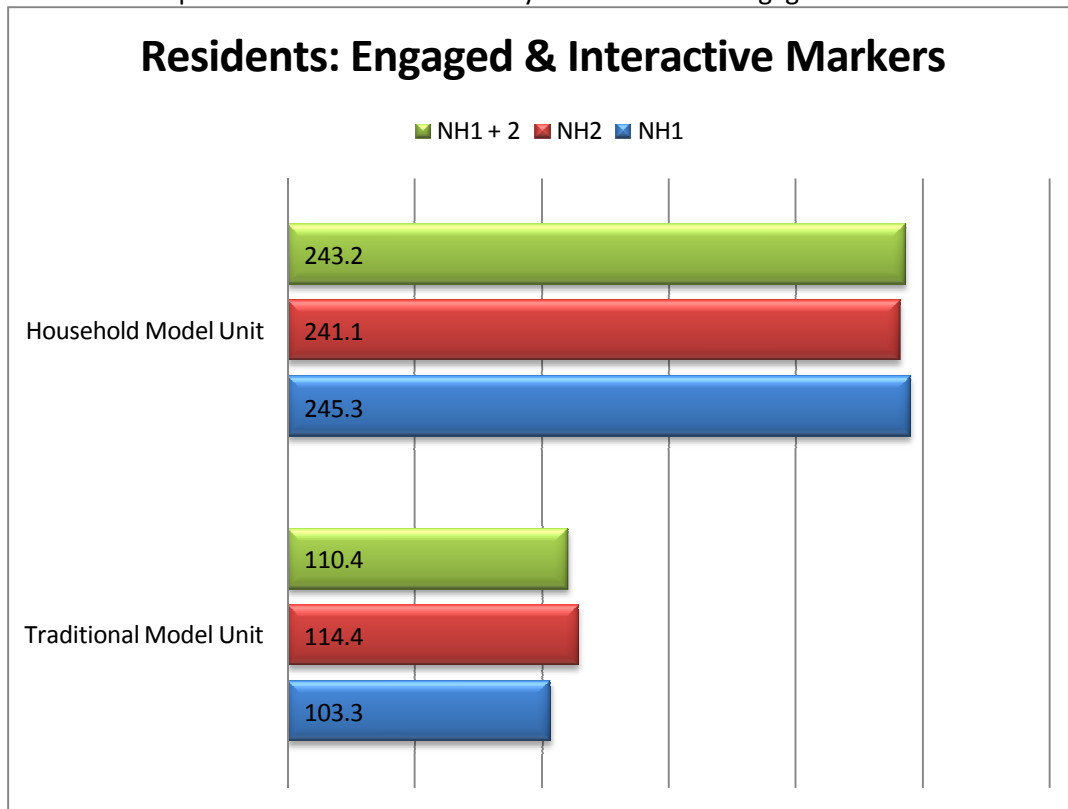


	TMU Total Resident snapshot markers	HMU Total Resident snapshot markers	% increase
NH1 + 2	457.3	586.4	28%
NH2	515.6	606.0	18%
NH1	355.3	566.7	59%

There was a significantly greater increase in the Engaged & Interactive Grouping category (Interactive Occupation, Social Engagement, Independent Activity and Receiving Care) snapshot markers in the HMU sitting rooms (Chart 5.2). The mean measurements for both nursing homes more than doubled, with separate trends for the TMU and the HMU data.

Residents became more interactive and more engaged within the HMU environment. This has implications for improving quality of life by creating HMU environments.

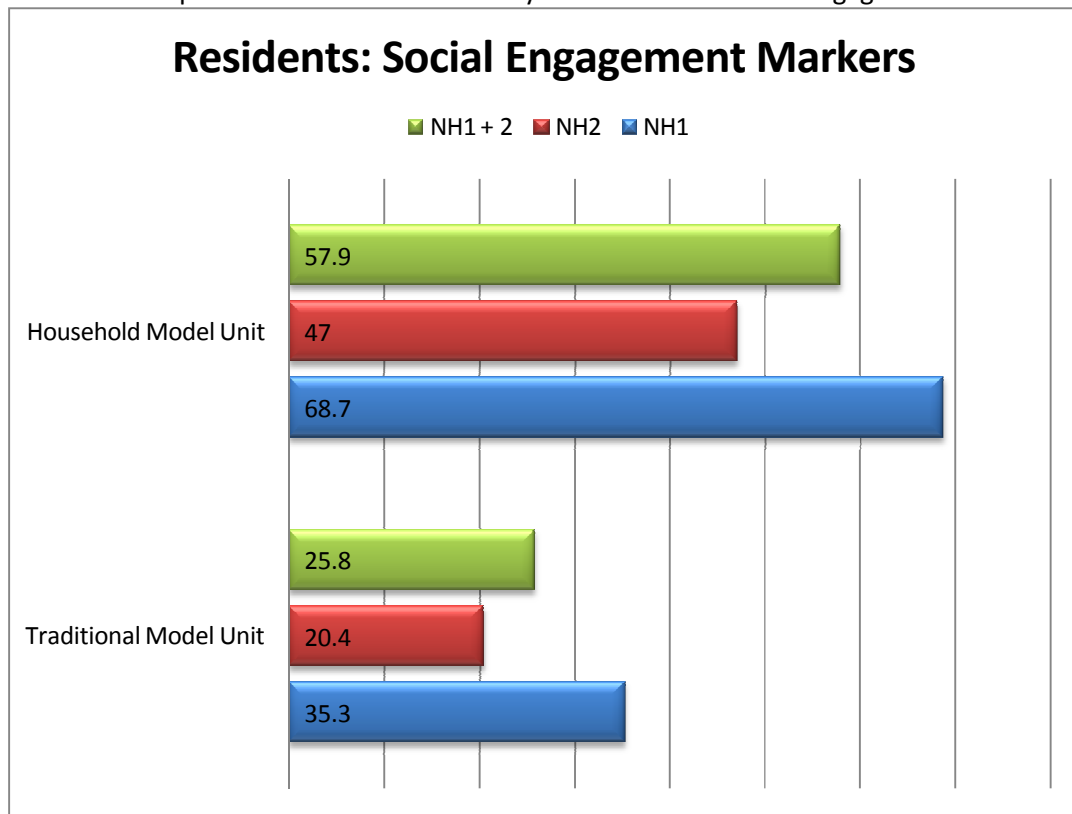
Chart 5.2: Comparison of TMU and HMU daily mean: Resident Engaged & Interactive markers



	TMU Engaged and Interactive Grouping daily mean (markers)	HMU Engaged and Interactive Grouping daily mean (markers)	% increase
NH1 + 2	110.4	243.2	121%
NH2	114.4	241.1	111%
NH1	103.3	245.3	137%

For the residents there was a statistically significant increase in Social Engagement in the HMU's (Chart 5.3). This was partly a result of having a staff member permanently in the room, who stimulated social interaction. There was a parallel increase in Social Engagement recorded for the staff (Chart 5.11). The amount of socialization in NH1 was always more than the socialization in the equivalent environment of NH2. The reason for this is not clear and further case study research would shed light on the matter.

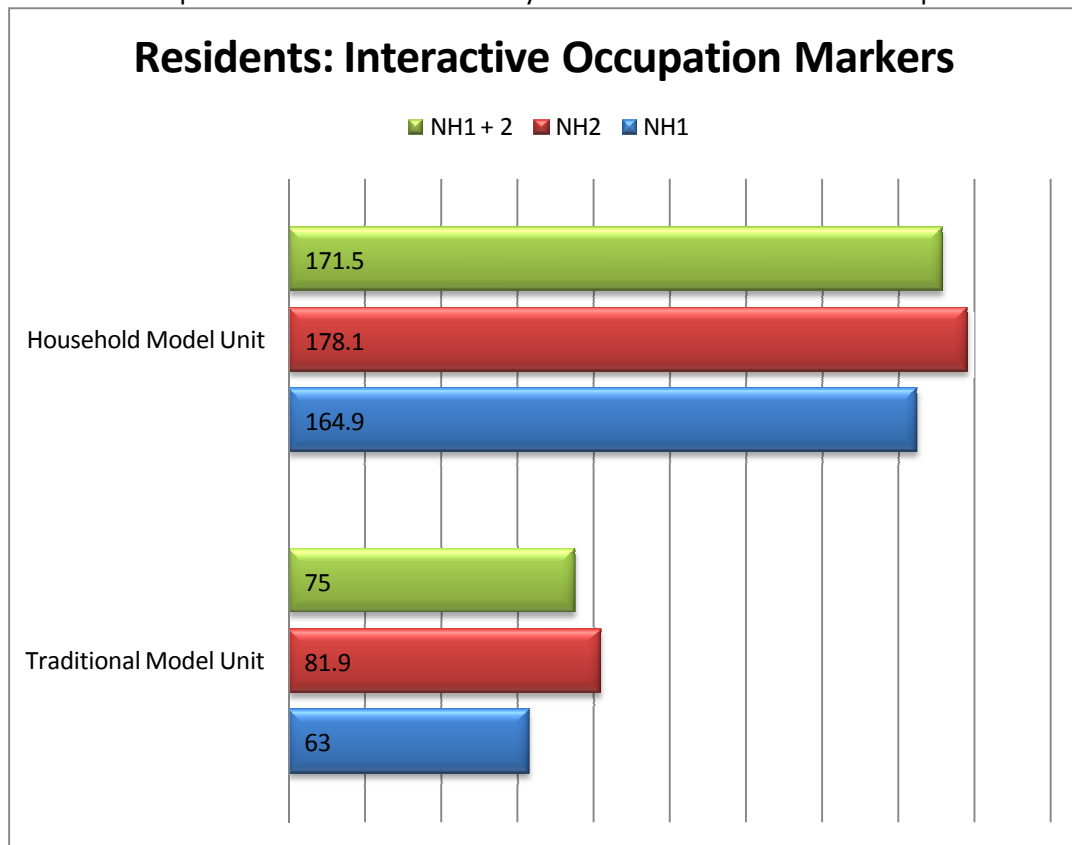
Chart 5.3: Comparison of TMU and HMU daily mean: Resident Social Engagement markers



	TMU Social Engagement daily mean (markers)	HMU Social Engagement daily mean (markers)	% increase
NH1 + 2	25.8	57.9	124%
NH2	20.4	47.0	130%
NH1	35.3	68.7	95%

The Interactive Occupation more than doubled in the HMU's (Chart 5.4). Compared to the stilted formality and institutional setting of the TMU's, the open plan areas and informal grouping of chairs and tables of the HMU encouraged spontaneous participation. In the HMU, the residents could see what is going on. The homemaker interacted more with the residents (see also Chart 5.12). The general busier environment encouraged greater participation and interaction from the residents.

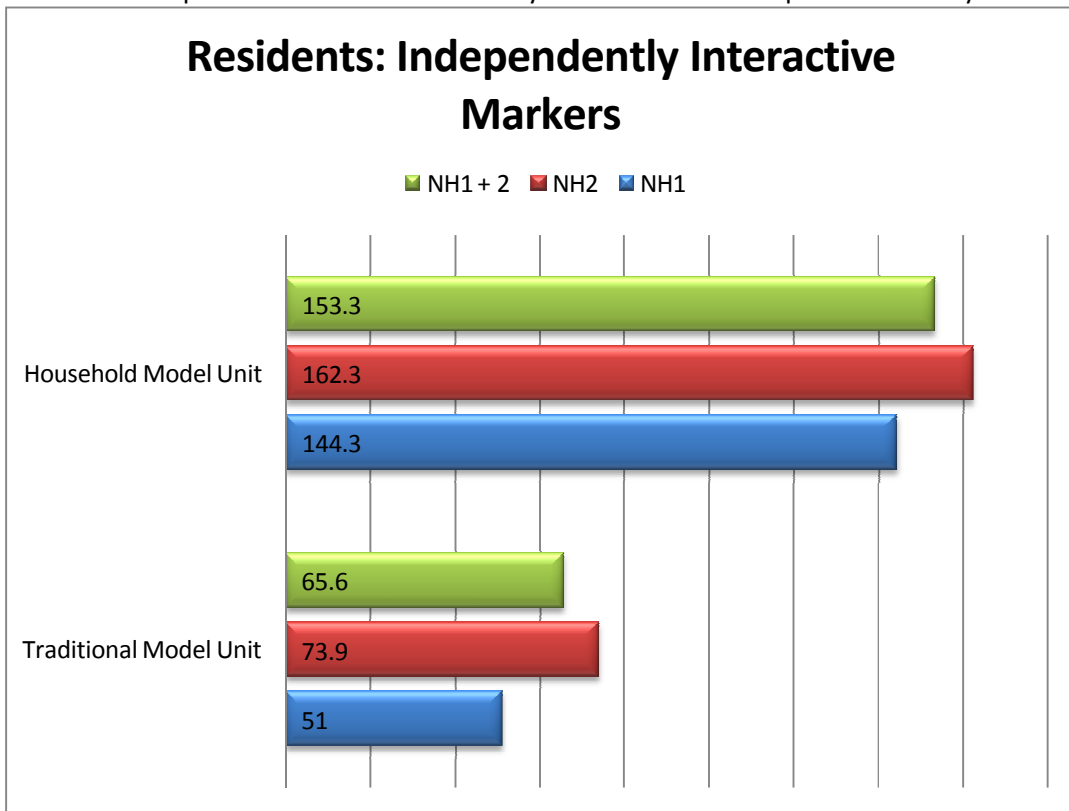
Chart 5.4: Comparison of TMU and HMU daily mean: Resident Interactive Occupation markers



	TMU Interactive Occupation daily mean (markers)	HMU Interactive Occupation daily mean (markers)	% increase
NH1 + 2	75.0	171.5	129%
NH2	81.9	178.1	118%
NH1	63.0	164.9	162%

The household environment enabled and prompted the residents to be more interactive within the HMU environment, without requiring sustained interventions from the staff (Chart 5.5). These activities ranged from wiping down a table or reading a newspaper or spending time drinking tea at a table. The residents were observed to undertake many of these activities without any prompting from staff. This is a key finding.

Chart 5.5: Comparison of TMU and HMU daily mean: Resident Independent Activity markers



	TMU Independent Activity daily mean (markers)	HMU Independent Activity daily mean (markers)	% increase
NH1 + 2	65.6	153.3	134%
NH2	73.9	162.3	120%
NH1	51.0	144.3	183%

Chart 5.6 shows the proportion of time residents spent in Engaged & Interactive category behaviours (Social Interaction, Interactive Occupation, Independently Interactive, Receiving Care) when they were in the room. Residents spent much less time in passive behaviours such as staring into space and sleeping. This is a key finding.

Chart 5.6: Proportion of Total Resident Markers accounted for by Engaged & Interactive markers

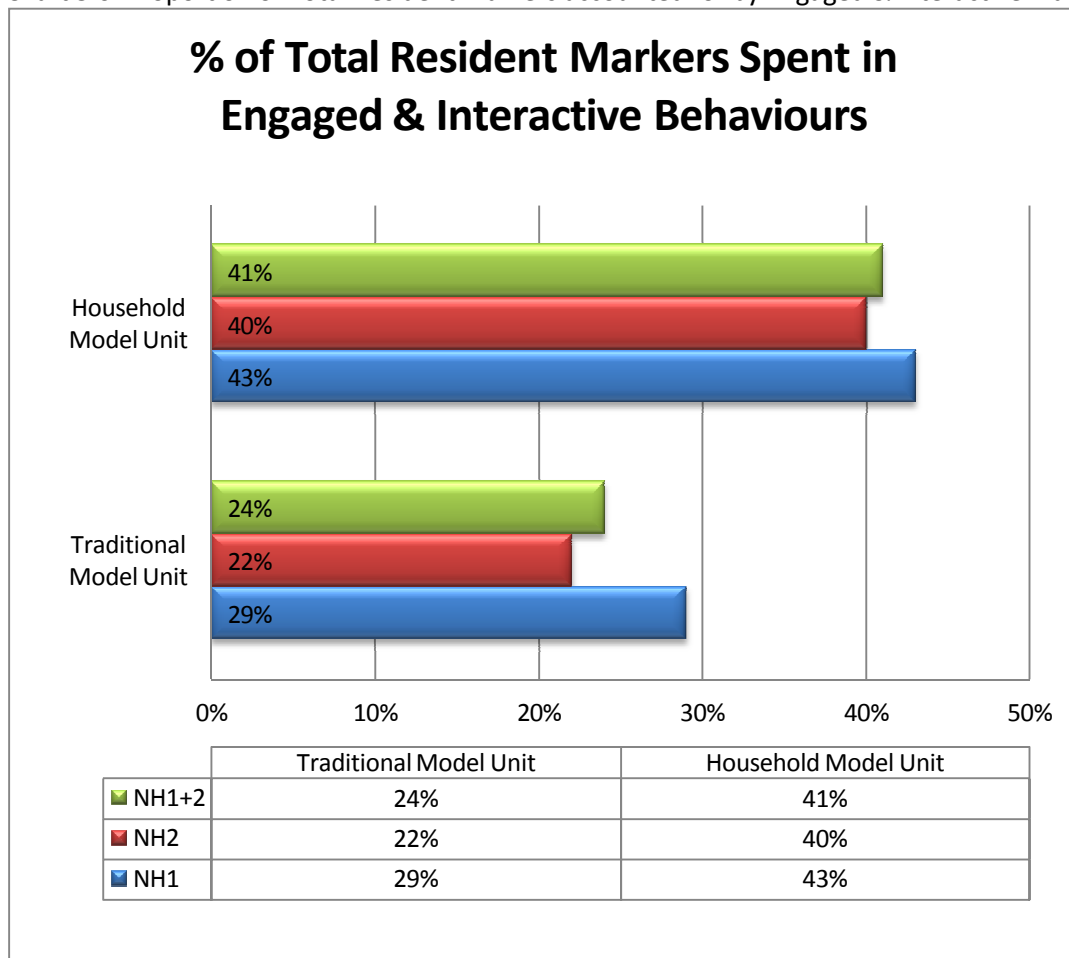


Chart 5.7 represents the proportion of time that residents spent in Independently Interactive behaviours when they were in the TMU and HMU communal sitting rooms. This represents the proportion of time that residents were active, but without the encouragement and assistance of the staff or other persons. The proportion of Total Resident Markers accounted for by the Independent Interactive category behaviours almost doubled in the HMU's. The TMU and HMU trends were markedly similar in both nursing homes. This chart demonstrates the key finding that the HMU environment encouraged the residents to self-initiate and sustain activity on their own.

Chart 5.7: Proportion of Total Resident Markers accounted for by Independently Interactive markers

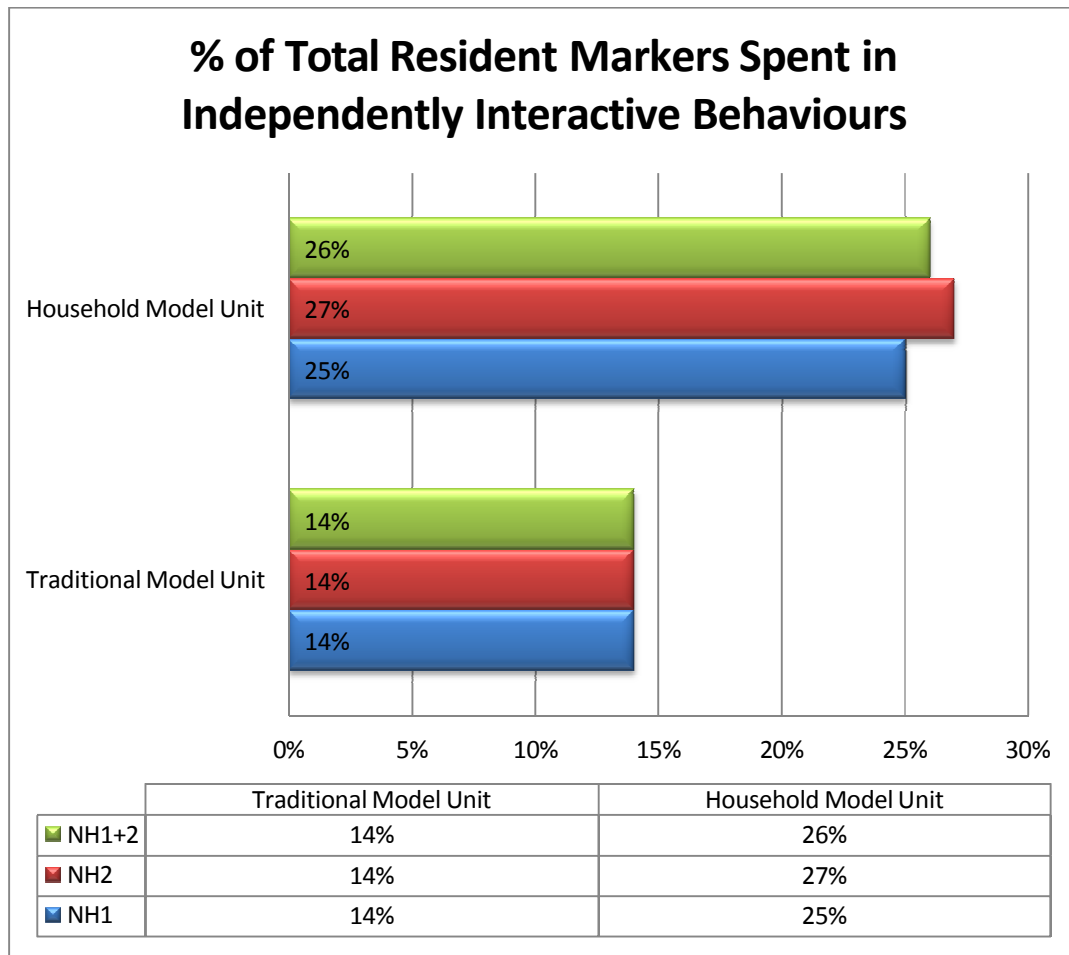
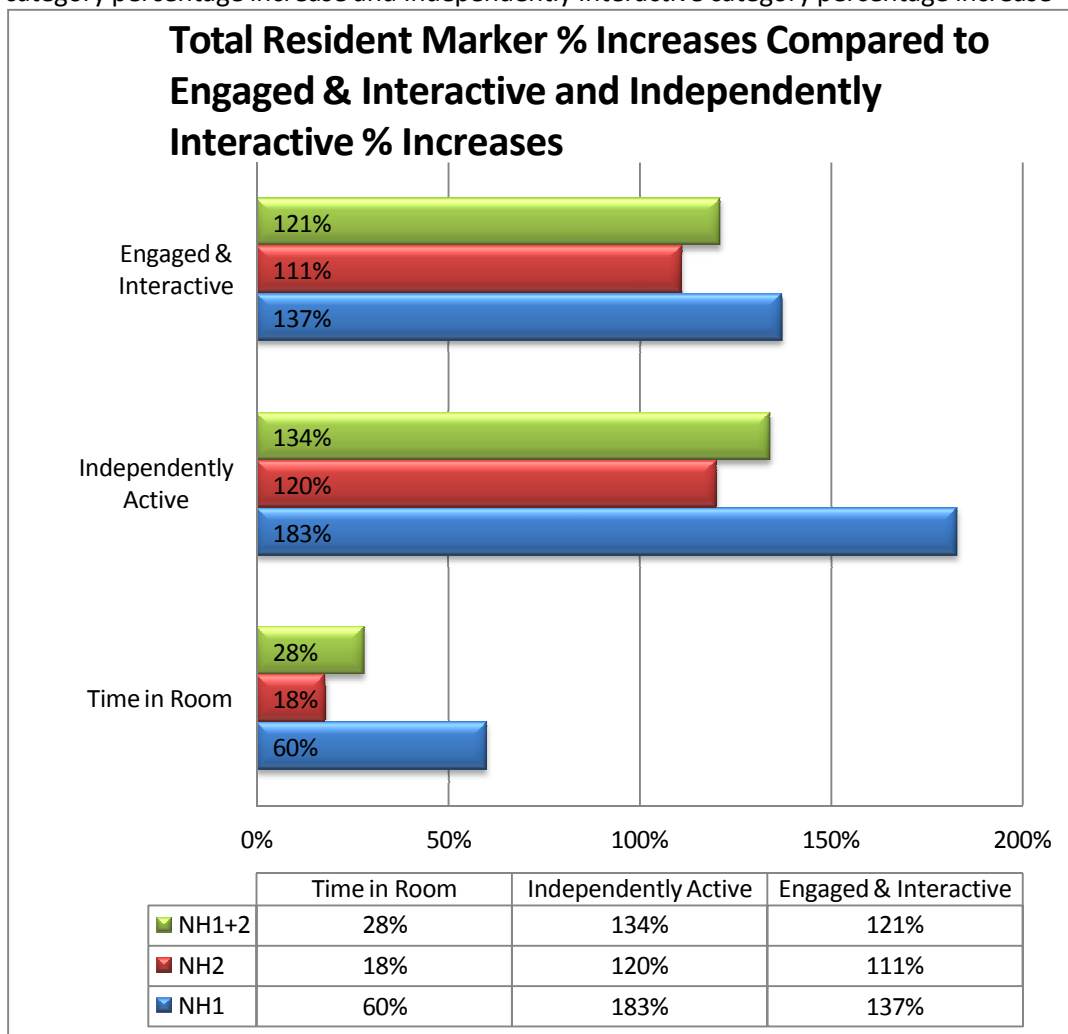


Chart 5.8 compares the increased proportion of Total Resident Markers with the increases in the proportion of time residents spent in Independent Interaction and Total Engaged and Interactive Grouping category behaviours. The HMU's had more residents in them for longer periods of time. However, the residents spent more of their time in interactive occupation and social engagement and these increases were much more than would be expected due to the increased time spent in the room alone.

Chart 5.8: Resident percentage increase of Time in Room compared with Engaged & Interactive category percentage increase and Independently Interactive category percentage increase



5.5 STAFF CHART OBSERVATIONAL DATA

There was a highly significant (Table 5.2; $p < .001$) increase of staff time in the communal living room areas of the households. This was unsurprising considering the appointment of a new homemaker post allocated to work in these open plan rooms. Previously staff spent most of their time undertaking personal care activities with residents away from the communal sitting area. The exception to this was the coordinated effort of the staff to provide all residents with a cup of tea and something to eat between meals. The staff were effective and efficient at accomplishing the task of seeing that all residents had been served, and then they vacated the room, continuing with their duties elsewhere, leaving the residents on their own.

This changed with the operational deployment of the homemaker in both HMU's. Alongside the various domestic and kitchen related tasks, the homemaker provided a constant monitoring and frequently interacted with residents in the open plan area. Other staff were not required for tea breaks for the residents as this was provided solely by the homemaker. Residents did not need to be rushed over their tea. Many could take themselves over to the tables in the open plan room, have their tea, and stay at the tables as long as they wished, before returning to the sitting area. The homemaker had more time for a chat while providing the tea, as there was not the pressure to return to the private areas to continue with the personal care there. The provision of the homemaker increased observed staff Social Engagement behaviours in both nursing homes (Table 5.2; $p < .001$).

There were significantly more snapshot markers recorded in the staff Work Task (Table 5.2; $p < .001$) and Total Non-Engaged (Table 5.2; $p < .001$) categories. These increases reflect that the homemaker had work tasks to undertake, such as the provision of food and beverage, the organization and cleaning of crockery and keeping the surfaces and floors clean.

The homemaker post was an additional post and this has cost implications. It was partly offset by reduced man-hours in the main centralized kitchens, as there was less to do. It was also partly offset by a reduction in nursing staff, as they were now responsible for two, rather than only one, units. Both nursing homes had the equivalent of an extra care worker across two of the three time periods under investigation in this study (Table 5.4).

Table 5.4: Care Workers on Duty (including homemaker post renovation)

	NH1 TMU	NH1 HMU	NH2 TMU	NH2 HMU
Care worker numbers 10:00 -12:00 a.m.	3	4	3	5
Care worker numbers 14:00 – 16:00 p.m.	2	3	2	2
Care worker numbers 18:00 – 20:00 p.m.	3	3	3	3
Care worker numbers across all shifts	8	10	8	10

The key finding for the staff data was that the homemaker position increased staff Social Engagement with residents in the HMU. The other categories representing interaction with residents (Interactive Occupation and Care Task) followed this trend, but did not reach statistical significance at the .05 level (Table 5.2).

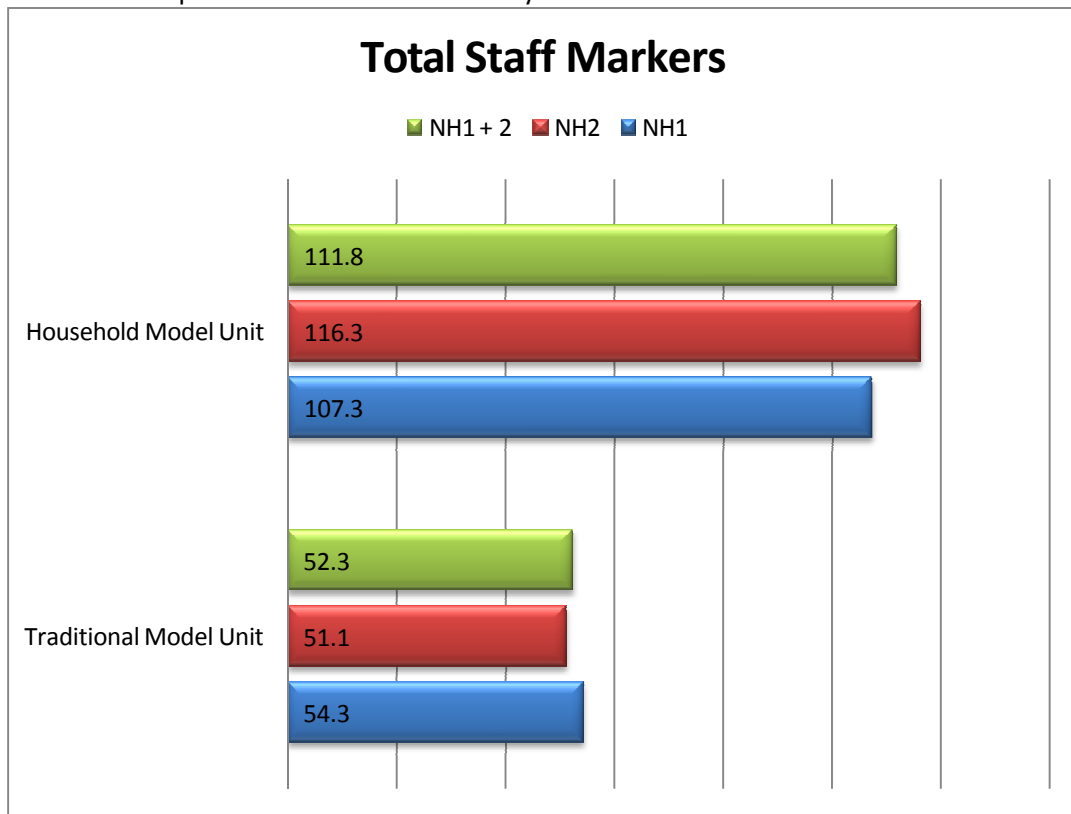
The homemaker position was responsible for encouraging more time spent by residents in the HMU open plan areas (Table 5.1 & Chart 5.1) because of the consistent homemaker presence in the open plan area.

The staff data is depicted in chart form and is examined more fully in Charts 5.9 to Chart 5.16 immediately following this section.

The employment of a homemaker with a dedicated responsibility to the kitchen and open-plan living area was effective in doubling the amount of staff presence within the household open plan area. The TMU markers represent the influx of staff for the scheduled tea breaks, with the room being devoid of staff at other times. The HMU Total Staff Markers represent the constant homemaker presence in the room.

The Total Staff Markers are given in Chart 5.9 below.

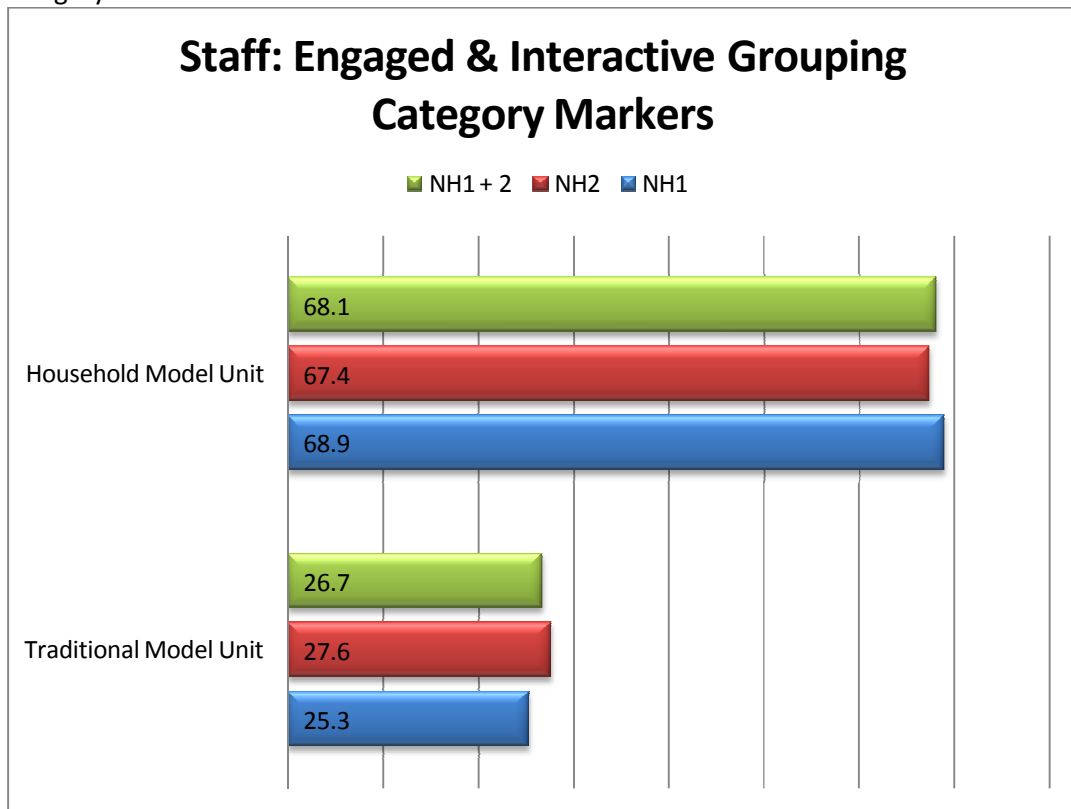
Chart 5.9: Comparison of TMU and HMU daily mean: Total Staff Markers



	TMU Total Staff Markers	HMU Total Staff Markers	% increase
NH1 + 2	52.3	111.8	114%
NH2	51.1	116.3	128%
NH1	54.3	107.3	98%

The Engaged & Interactive Grouping category (Interactive Occupation, Social Engagement and Providing Care) changes were highly significant (Table 5.2; $p < .001$) and indicate that there was more staff interaction with residents in the HMU's. In addition, although the daily means more than doubled, the standard deviation, or daily variability, became less (Table 5.2). The close clustering of the data for the TMU, with a separate clustering of the HMU results, suggests that new trends of interaction were established for the HMU environments. This is clearly depicted in Chart 5.10.

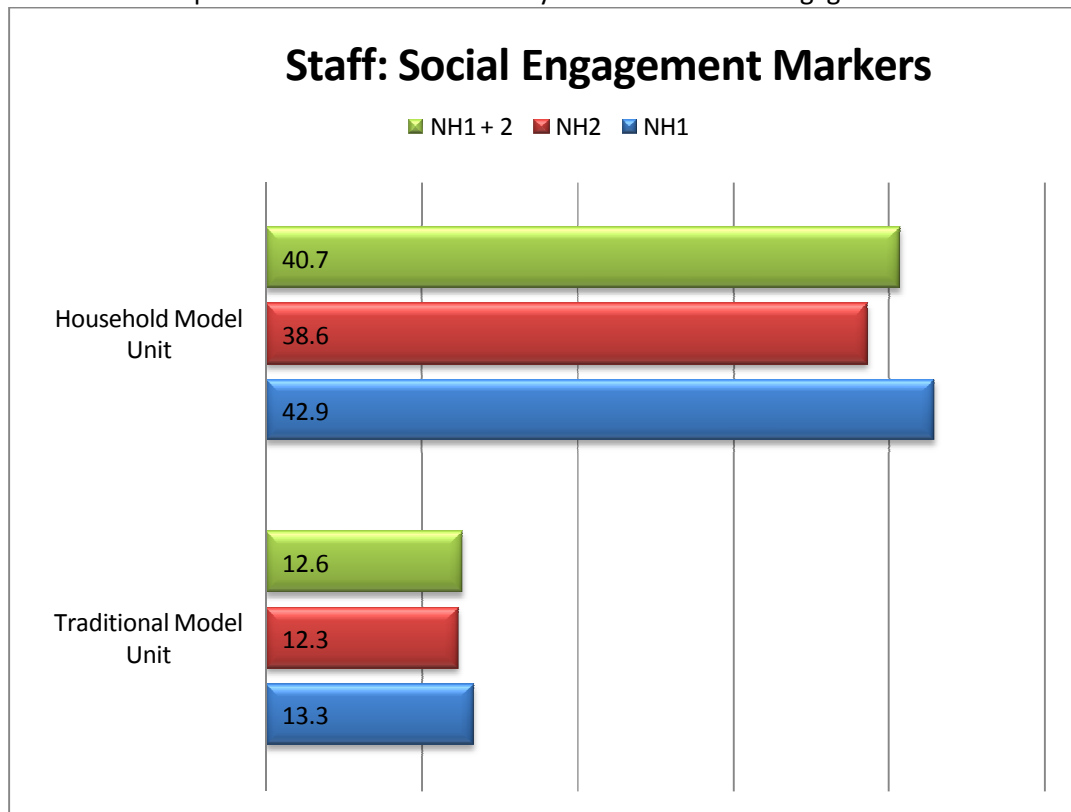
Chart 5.10: Comparison of TMU and HMU daily mean: Staff Engaged & Interactive Grouping category markers



	TMU Engaged & Interactive daily mean (markers)	HMU Engaged & Interactive daily mean (markers)	% increase
NH1 + 2	26.7	68.1	155%
NH2	27.6	67.4	144%
NH1	25.3	68.9	172%

The operational deployment of the homemaker provided more Social Engagement behaviours between staff and residents in the HMU's. The values more than doubled and the changes were highly significant (Table 5.2, $p \leq .001$). This is shown in Chart 5.11 below.

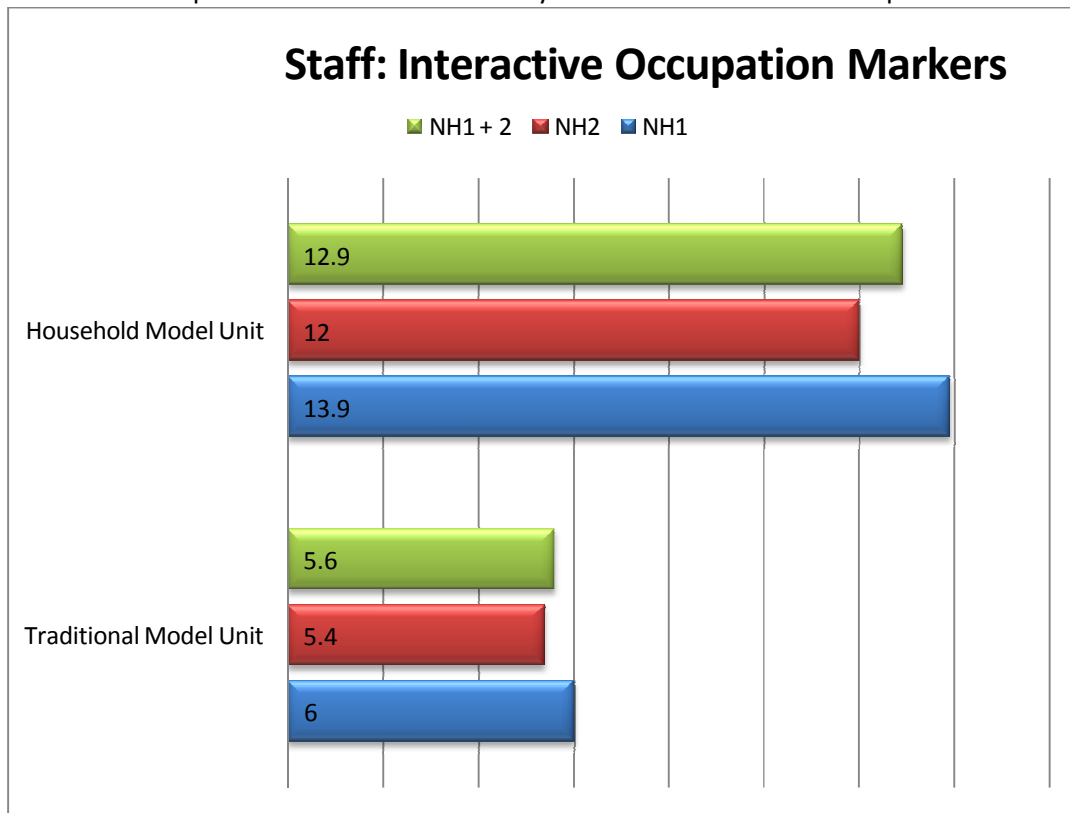
Chart 5.11: Comparison of TMU and HMU daily mean: Staff Social Engagement markers



	TMU Social Engagement daily mean (markers)	HMU Social Engagement daily mean (markers)	% increase
NH1 + 2	12.6	40.7	223%
NH2	12.3	38.6	214%
NH1	13.3	42.9	223%

There was greater staff Interactive Occupation in the HMU's than in the TMU's (Chart 5.12). Although there was a doubling of the daily marker means, there was also great fluctuation in these daily means, as expressed in the standard deviation (s.d.) of the HMU data (ref: Table 5.2). Therefore, although the trends are there, the findings for staff Interactive Occupation did not reach significance and the trends cannot be said to be reliable.

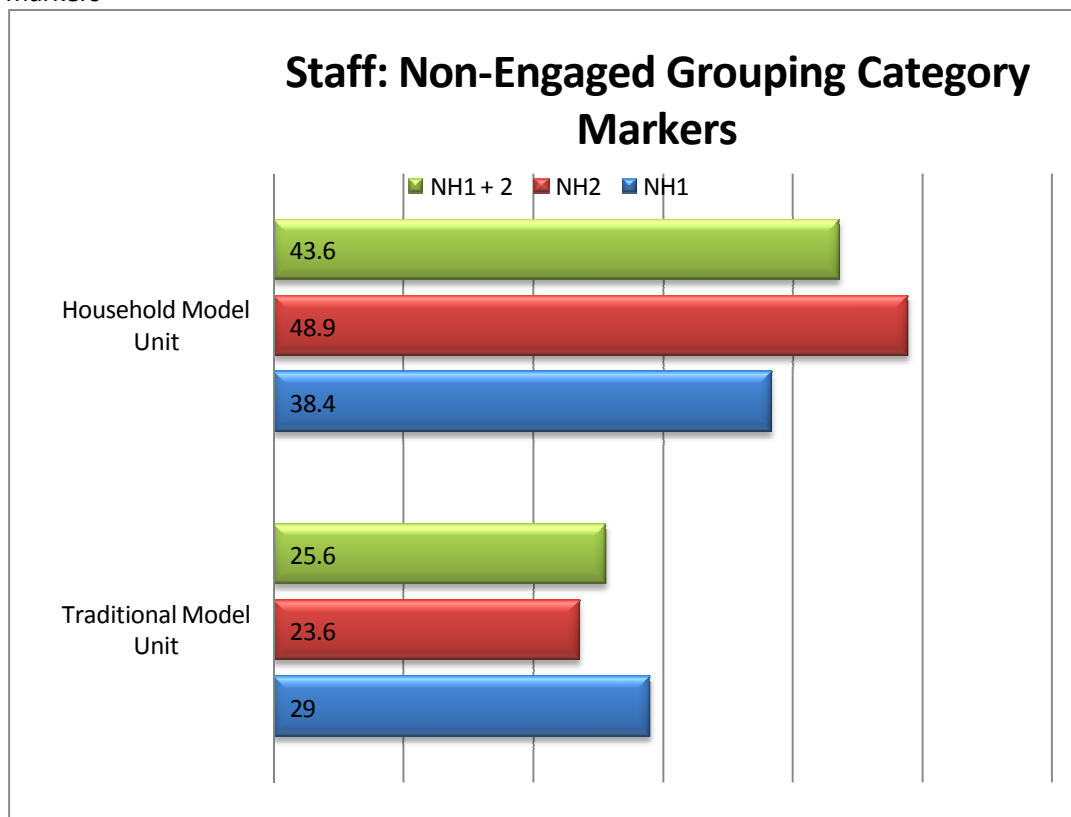
Chart 5.12: Comparison of TMU and HMU daily mean: Staff Interactive Occupation markers



	TMU Interactive Occupation daily mean (markers)	HMU Interactive Occupation daily mean (markers)	% increase
NH1 + 2	5.6	12.9	130%
NH2	5.4	12.0	122%
NH1	6.0	13.9	132%

Chart 5.13 describes the significant increase in the staff Non-Engaged Grouping category, of which the Work Task was the largest category (Table 5.2). The Non-Engaged Grouping category describes the staff maintenance and support tasks where there was no direct interaction with residents. In the TMU's these tasks were undertaken by the generic care staff, while in the HMU's the data primarily reflects the presence of the homemakers in the room.

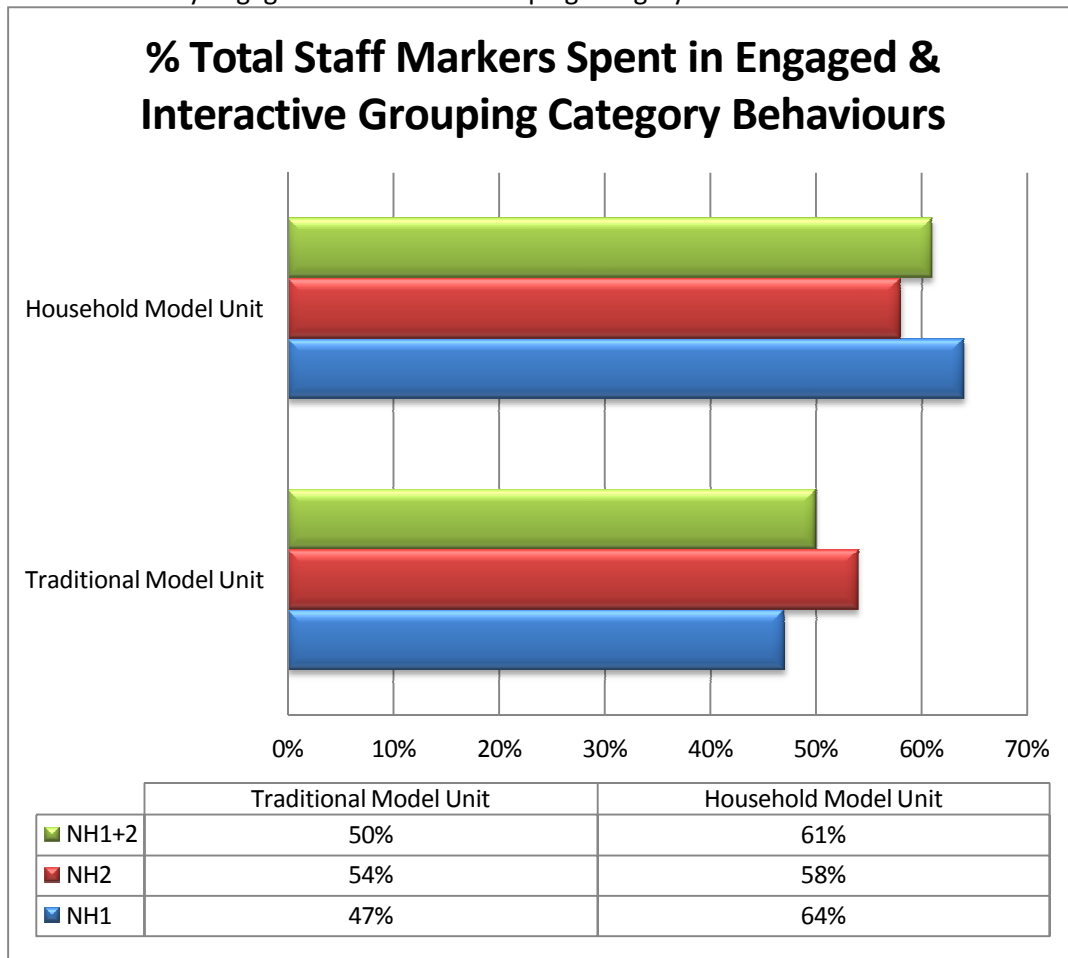
Chart 5.13: Comparison of TMU and HMU daily mean: Staff Non-Engaged Grouping category markers



	TMU Non-Engaged daily mean (markers)	HMU Non-Engaged daily mean (markers)	% increase
NH1 + 2	25.6	43.6	70%
NH2	23.6	48.9	107%
NH1	29.0	38.4	32%

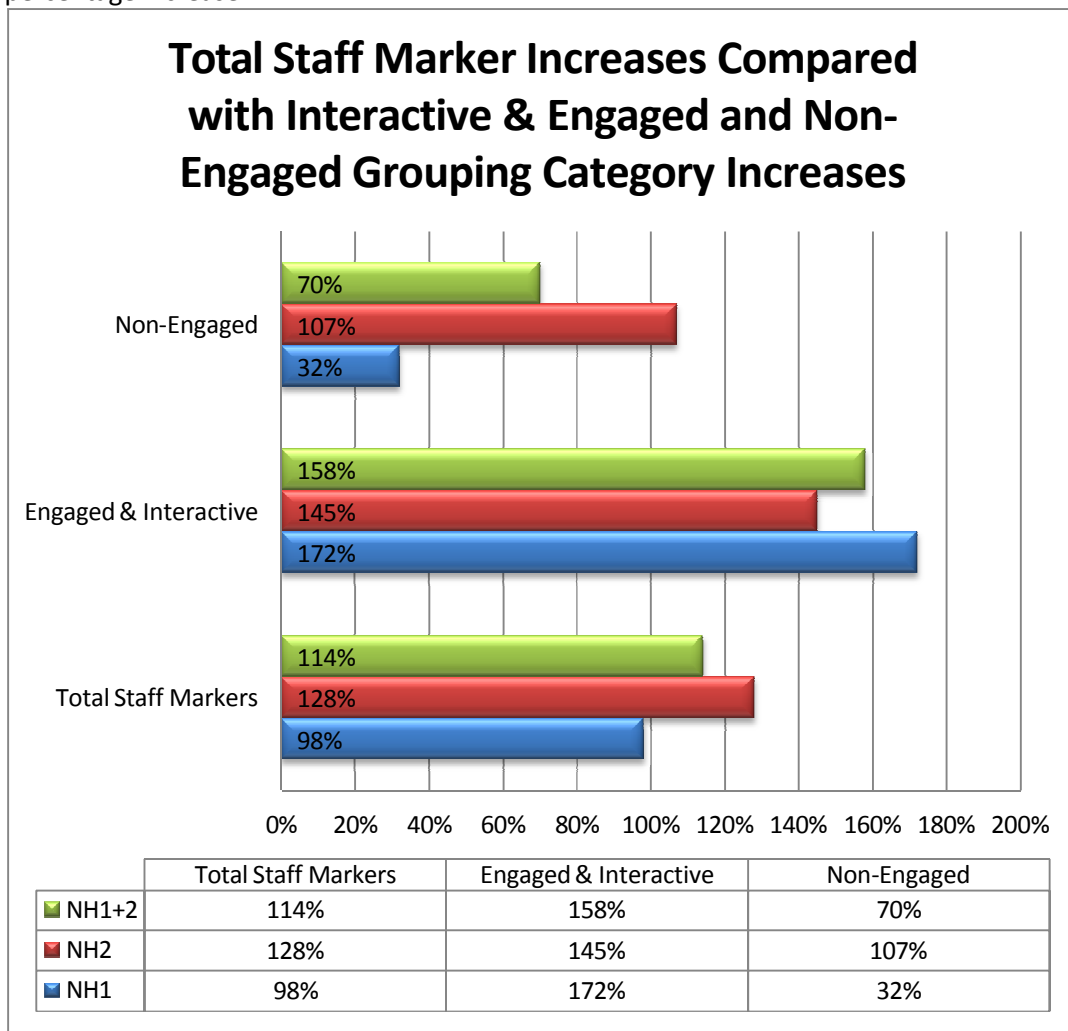
Chart 5.14 gives the total daily markers for the staff Engaged & Interactive Grouping category divided by the Total Staff Markers. When staff were in the TMU communal living area, they spent less of their time interacting and engaging with the residents than in the HMU's. This was more evident in NH1.

Chart 5.14: Comparison of TMU and HMU staff daily mean: Proportion of Total Staff Markers accounted for by Engaged & Interactive Grouping category markers



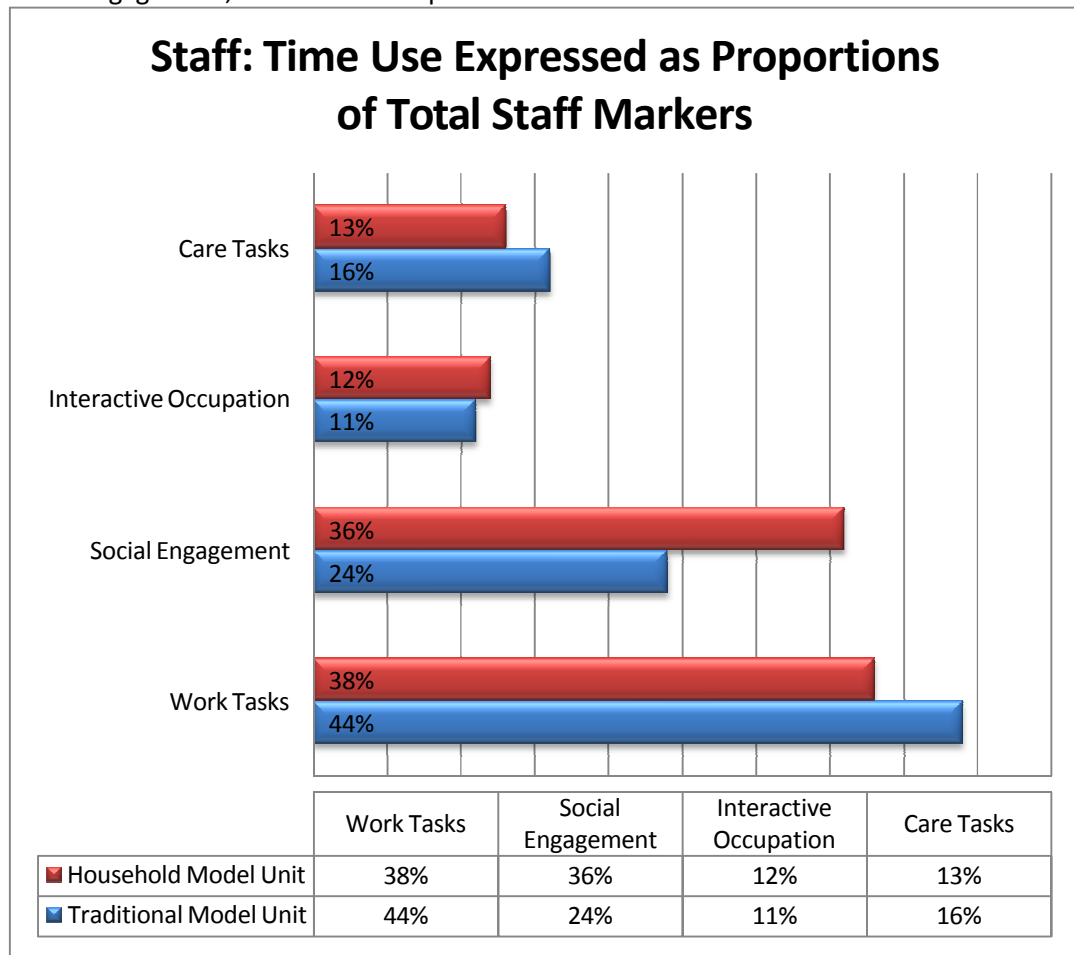
Staff spent more time in the HMU communal rooms. The percentage increase in the Engaged & Interactive Grouping category markers was larger than the Total Staff Marker increases (Chart 5.15). The increases in staff behaviour denoting Engaged & Interactive Grouping category behaviours increased much more than the Non-Engaged (primarily Work Task) Grouping category behaviours. This further demonstrates the positive role of the homemaker in the HMU open plan areas. This was most evident for NH1.

Chart 5.15: Total Staff Markers category percentage increase compared with staff Engaged & Interactive Grouping category percentage increase and staff Non-Engaged Grouping category percentage increase



In the HMU environments, the staff (as represented by the homemaker) became less involved in Work Task behaviours. Chart 5.16 shows that while these Work Task category behaviours still dominated the staff daily markers, they decreased from 44% of total observed markers in the TMU to 38% in the HMU. Meanwhile staff Social Engagement category behaviours increased from 24% in the TMU to 36% in the HMU. Residents had more interaction time from the staff in the HMU. The data in the Care Task and Interactive Occupation categories remained relatively unchanged.

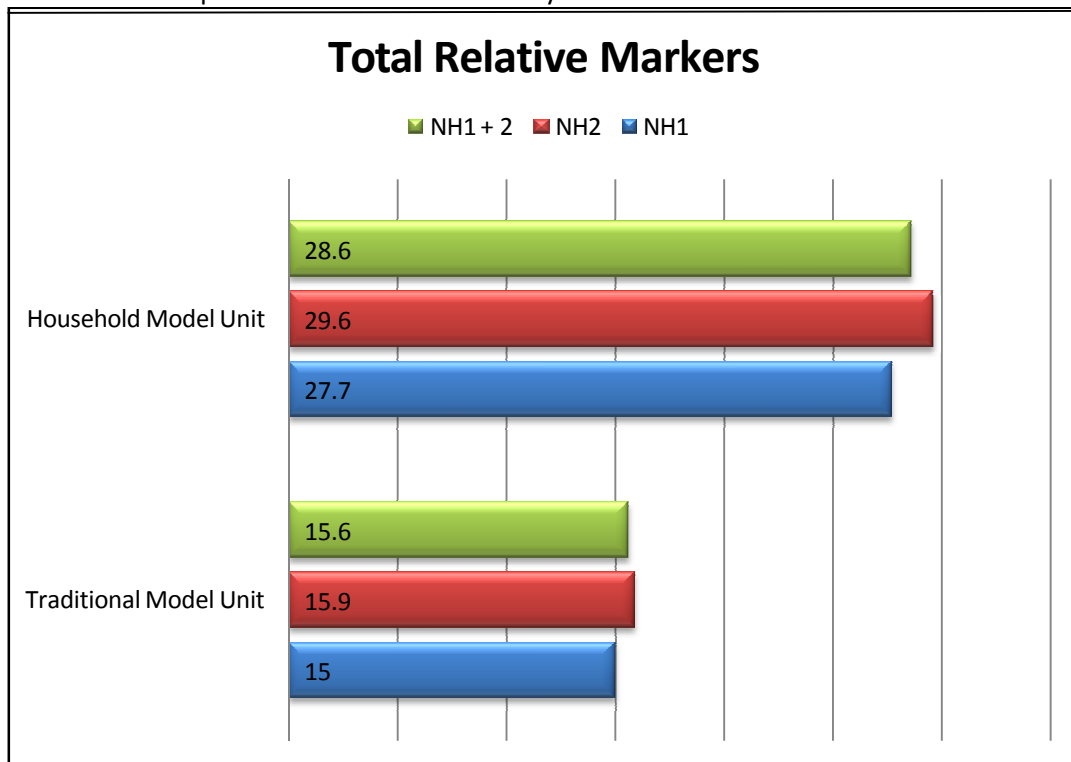
Chart 5.16: Comparison of proportions of Total Staff Markers accounted for by Work Tasks, Social Engagement, Interactive Occupation and Care Tasks in the TMU and HMU



5.6 RELATIVE CHART OBSERVATIONAL DATA

There were more relative markers in the HMU's than the TMU's and there was a clustering effect of the findings for the TMU and the HMU environments with both nursing homes. The daily snapshot markers were variable, with some days having very few relative visits (Table 5.3). Because of this high variation in marker data across the days, the TMU and HMU marker differences were not statistically significant (Table 5.3, $p=.07$). Although Chart 5.17 shows a marked difference between the TMU and HMU data results, it cannot be discounted that the differences were due to chance alone.

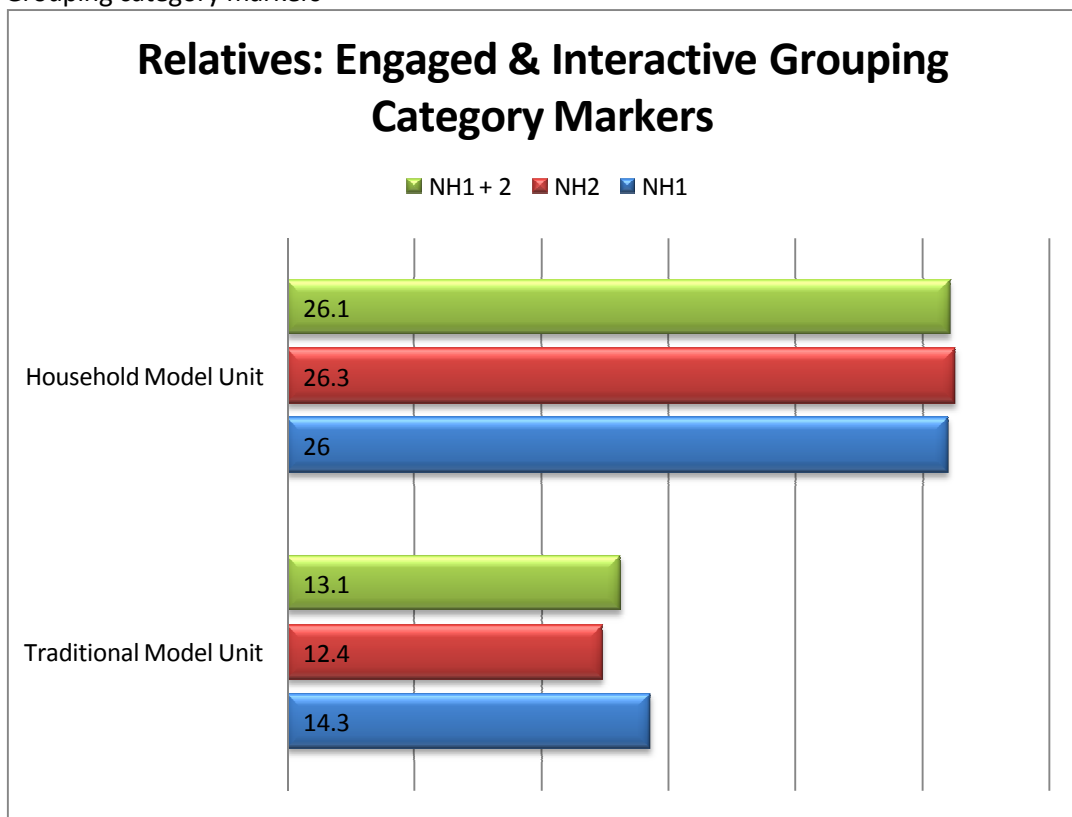
Chart 5.17: Comparison of TMU and HMU daily mean: Total Relative Markers



	TMU Total Relative Markers	HMU Total Relative Markers	% increase
NH1 + 2	15.6	28.6	85%
NH2	15.9	29.6	86%
NH1	15.0	27.7	85%

The relative Engaged & Interactive Grouping category (Active Occupation, Social Engagement and Providing Care) findings are given in Chart 5.18. This grouping category provided the only statistically significant findings for the relatives (Table 5.3, $p \leq .05$). Relatives interacted more in the HMU environments. Social Engagement with residents was by far the greatest component of the Engaged & Interactive Grouping category.

Chart 5.18: Comparison of TMU and HMU daily mean: Relative Engaged & Interactive Grouping category markers



	TMU Engaged & Interactive daily mean (markers)	HMU Engaged & Interactive daily mean (markers)	% Increase
NH1 + 2	13.1	26.1	99%
NH2	12.4	26.3	112%
NH1	14.3	26.0	82%

The relatives came to the nursing homes to visit with their family member. Once the purpose of the visit was accomplished, they had no reason to stay and so they left the unit. There was a parallel increase in time spent in the room and the time spent engaged with their family member as would be expected (Chart 5.19). However, for NH2 there was a much greater increase in engagement. This is shown in Chart 5.20.

Chart 5.19: Comparison of TMU and HMU Total Relative Markers percentage increase compared with Engaged & Interactive Grouping category percentage increases

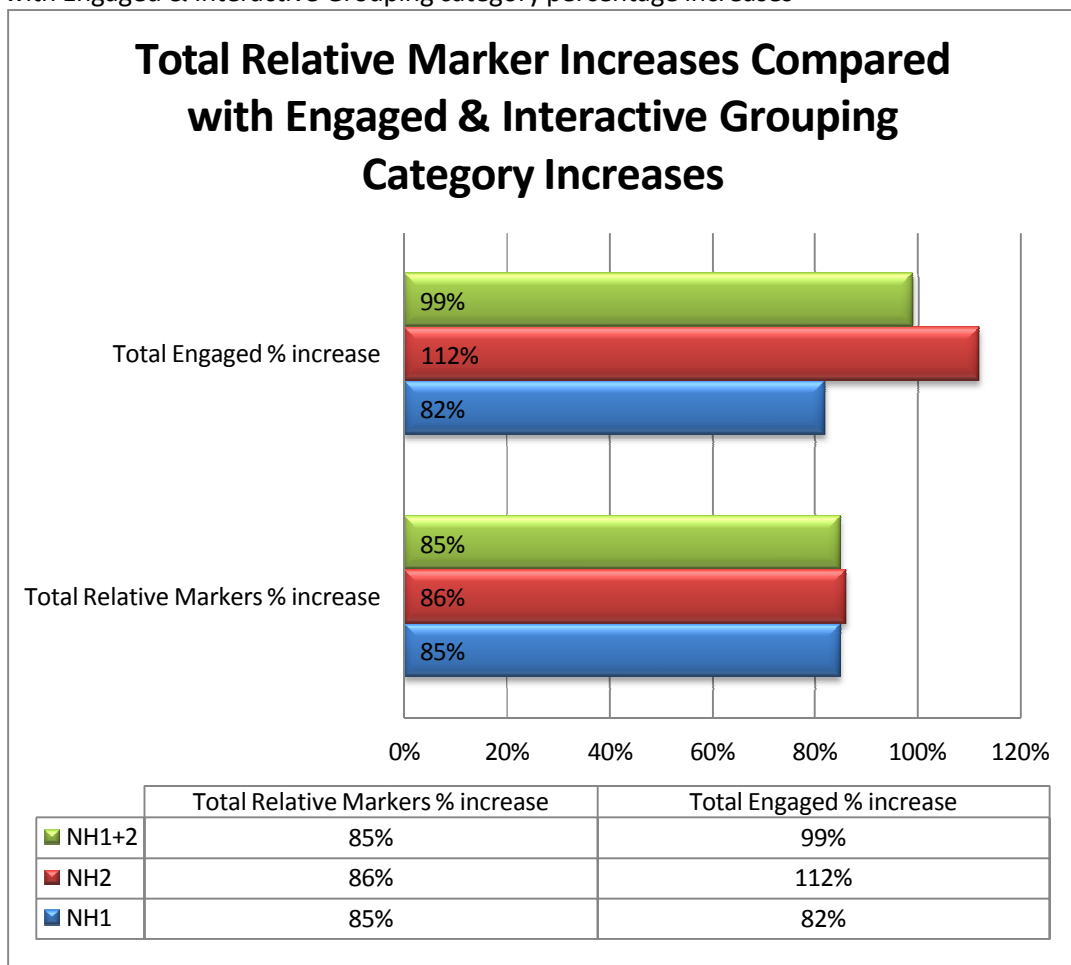
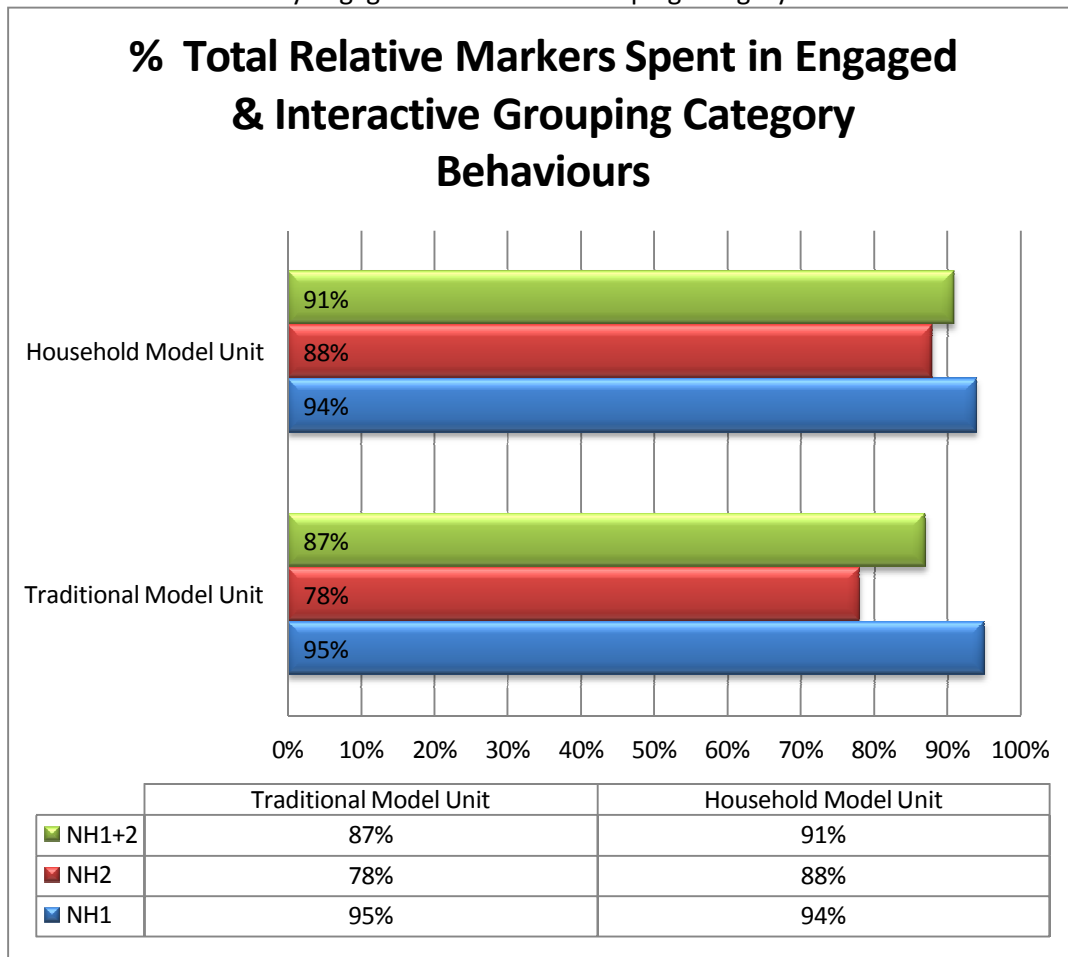


Chart 5.20 represents the proportion of time that relatives spent in Engaged & Interactive Grouping category behaviours when they were in the TMU and HMU environments. The findings for NH1 remained constant. There was less engagement in the NH2 TMU, reflecting the formal institutional positioning of the chairs around the walls, which made interaction more difficult. This changed in the more homelike NH2 HMU, where the values were close to 90% and close to the values of NH1. These trends must be evaluated with caution, however, due to the small numbers of markers on which these findings were based.

Chart 5.20: Comparison of TMU and HMU relative daily means: Percentage of Total Relative Markers accounted for by Engaged & Interactive Grouping category markers



5.7 CHAPTER SUMMARY

This chapter has presented the quantitative observational data of the communal sitting rooms, which compares the TMU with the HMU environments. The daily markers of the ATOSE assessment form were compared pre and post renovation by using the Independent t Test. This found that there was a statistically significant change in how interactively occupied, how independently active and how socially engaged the residents were and how they spent more time in the communal sitting room environment. The measurements for the staff indicated more time was spent in the room, reflecting a change in staffing and operational policy. The outcomes also show that staff were more engaged and interactive when they were in the room. The data for the relatives showed significance only in the aggregated Engaged & Interactive category.

Charts were presented which defined consistently separate trends for the TMU and the HMU environments. The charts demonstrated that resident interactivity and engagement levels went up by over and above what would be expected simply due to the increased amount of time that residents were spending in the room. This suggests that the HMU environment specifically stimulated greater interaction and engagement. Being in the household environment encouraged residents to do more for themselves, and to be more socially engaged and interactively occupied within their environment. This data supports the hypothesis that providing an HMU is able to positively influence the behaviour of the residents, staff and relatives.

The next chapter, Chapter 6, provides pre renovation qualitative interview data describing staff and relatives views and opinions about the pre renovation environment. It presents their thoughts about what the HMU would be like and any concerns they had. The successive chapter (Chapter 7) presents the findings of the post renovation interviews, reflecting how these same staff and relatives viewed the HMU environment in comparison with the HMU environment. This

provides a context for the results presented, as above, in this chapter. The qualitative interview data indicates which important environmental components have created the change. In addition, the qualitative data indicates if the significant statistical differences between the TMU and HMU environments are relevant in the real world. The qualitative data in the following chapters provides staff and relative interview data on how the change process influenced the way that life was lived within the unit, as well as how the working and visiting life was affected by the changes.

CHAPTER 6: TRADITIONAL MODEL UNIT (TMU) INTERVIEWS

6.1 INTRODUCTION: QUALITATIVE RESEARCH FINDINGS

This chapter presents the findings of all the interviews conducted in the pre renovation phase of the research project. The chapter begins with the Executive Director interviews, which set the context for the renovations. They are accompanied by photographs. The findings of the relative and staff interviews are presented in separate sections. The Executive Director, staff and relatives give their views of the Traditional Model Unit (TMU) environment and the expectations that they had for the HMU environment. The parallel Household Model Unit (HMU) interviews are presented in Chapter 7.

The TMU interviews identify problems with the traditional model of care and the expectations which management, staff and relatives had about the new model of care. This was an exploratory process, giving the interviewees a chance to express their hopes, to identify current issues and concerns and to anticipate potential difficulties and benefits of the new model. The interviews give a baseline of experience against which the HMU interviews can be compared, to understand how the lived experience has altered as the result of the physical and operational changes.

6.1.1 Definitions

The term 'resident' is used to describe the people with dementia living in the units when writing from the staff perspective. The term 'family member' is used when describing a resident from their family member's perspective. The visitors who participated in the interviews were all related to a resident. They are called 'relatives' in order to express this relationship.

6.1.2 Interviewee Selection

The dementia specific secure units of two Irish nursing homes are explored through an interview process which included every staff and family representative who wished to cooperate. The residents themselves were not interviewed for two main reasons. Special techniques are required for gaining accurate information from persons with dementia and for validating its reliability. Many of the residents suffered from severe communication disorders. They had difficulty understanding concepts and language and had difficulty in expressing themselves. It would be difficult for residents to be able to reliably compare the HMU environment with their memory of the Traditional Model Unit (TMU) environment, while factoring in their own physical and cognitive deterioration. Whilst to some extent specialized techniques could overcome these challenges, this was beyond the time and financial resources of this research study.

6.1.3 Context

Both nursing homes (NH1 & NH2) were interested in having an analysis of their change programmes and renovations as a feedback mechanism looking at the success or failure of the ventures. Both homes had a reputation of being well run and were full to capacity. The relative interviewees spoke about the superior quality of the nursing homes, which made them feel more confident in the decisions of the Executive Directors.

Most of the relatives and staff were of the opinion that the units were above standard for Ireland even before the renovations. Several relatives spoke about previous units they had visited or where their family member had resided, and were of the opinion that standards were better at the present units.

Whilst every attempt was made to gain the widest and fullest response to the interviews, not all staff and relatives put themselves forward for interview. It is possible that there were relatives

and staff who were opposed to the renovations and who chose not to attend for interview. If this were the case, the interview population would be imbalanced.

The staff and relatives were provided with a confidential and safe framework, and they were able to be honest in their opinions as trust developed. This allowed them to talk about the challenges they faced in their work or in their visiting. Anonymity was guaranteed.

6.2 EXECUTIVE DIRECTOR INTERVIEWS

This section of Chapter 6 gives the framework views, and ideas for change, from the Executive Directors who had initiated the project and were the prime movers in rolling out the project. The Executive Directors were aware that their nursing homes looked institutional and operated in an institutional fashion. This chapter section presents the viewpoints of the Executive Directors and their expressed need for change. The succeeding sections present the views of the staff and relatives in relation to the need for change, and their expectations for the new environment.

There was frequent contact and an exchange of ideas between the Executive Directors of the nursing homes. While the Executive Directors recognized the marketing potential of being at the cutting edge of care provision, they were clear that the main motivating factor for the changes was the desire to provide a better environment for the residents of the units.

Executive Director: We don't have to change. Our reputation is a good reputation. Satisfaction is high. Our HSE inspection reports are good. We don't have to do this. But as I said, we want to provide something that is different. And conveniently that fits with our own personal drivers of having a setting of care that is built more around the individual, built more around a sense of home. Rather than corridors and bedrooms off corridors and the dining room down the far flung end of the building and people being very busy transporting residents to and from that dining room. And we forget the individuals. It's as simple as that. They are the drivers. But also it was around protecting our reputation, protecting our position in the market as a market leader in quality services.

Photo 6.1: NH1: TMU Sitting Room



Photo 6.2: NH1: TMU Separate Dining Room



Photo 6.3: NH2: TMU Sitting Room



Photo 6.4: NH2: TMU Separate Dining Room



The Executive Directors spent several years researching new models of service delivery. The most influential of these was Steve Shields, of Meadowlark Hills in the USA (Shields & Norton, 2006). Their resulting model was created after various visits to Meadowlark Hills and other international venues and in consultation with Steve Shields in particular, who presented information about making efficiencies around tasks, creating easier access, and saving time by localized, rather than centralized services.

Executive Director: What we saw in the States was the change process around people's thinking, rather than 'Wow, look at this building'. There was a kitchen, there was a dining room. There was a sitting room. We know what sitting rooms are. Individual bedrooms. We have individual bedrooms. So that didn't wow us. It was the attitudinal change. And the culture change. And it was about breaking down the institutional barriers.

Executive Director: There is a danger that service delivery models are implemented because evangelical people sell the concept very well. But it is very difficult to replicate that model in other settings. So a potential weakness is the replication of this model, which has been influenced from the US and Scandinavia. With the modelling that was done, the assumptions are difficult to put into an Irish context. We picked this up early in the process and that is why we changed tack in implementing the model, because we wanted to create something that was fit for the local context; that was fit for the local environment. And also was set within the cultural moulds comfortably.

The final Irish model was envisaged to differ from the American model in areas such as financial costing, task reduction and clinical care. Both nursing homes were in the process of re-defining the role of the nurse away from the organizational and managing components of their role, allowing the nurse to focus on their clinical role. As a consequence, the nursing homes created a household coordinator, drawn from the care worker staff, to take on the management and rostering of the household care staffing, which had previously been the responsibility of the nurse.

Executive Director: Traditionally the nurse is in charge in this model. And everything is filtered through the nurse. Now we are saying the household coordinator will take a lot of day-to-day stuff from the nurse, that doesn't need to go through the nurse. That they are very capable of dealing with if you empower them. So you are empowering very good people to do stuff... So it is breaking that medical model. And it has allowed me to break the service into clinical supervision and household supervision. That the clinical person is not the god.

The Executive Directors of both nursing homes worked out funding and operational procedures. They created a plan for the renovations. Both prepared the residents, staff and relatives for the changes which would be undertaken. They managed the insecurities and expectations of everyone. Funding was allocated for the training and the backfill of staff to allow time off the unit. Meetings were coordinated for staff and for relatives.

Many staff and relatives spoke about their puzzlement at why the renovations should be entertained at all. "If it's not broke, why fix it?" was a comment heard many times during the TMU interviews. Relatives commented that they had chosen these homes because they were the

best in the area. Similarly, staff spoke about the quality of service provision and compared this favourably to other nursing home units in the locality.

Son: It's actually a very pleasant place. I was sceptical at first about residential care. People think that the privately run residential care is not as good as the state care. I find it very pleasant here and the atmosphere very good. The staff are always willing to get to know you and talk to you and things like that. I like to come. For me it's not a chore.

Executive Director: When you speak to people they say 'What's wrong? It's not broken?'. When you speak to families they say 'I don't know why you are doing this because it's not a big issue'. Of course we can improve and do things better. But to change the model of care is such a risky thing to do when it is already seen as a very good model of care. I know it is right to do what we are going to do. My staff have bought into that. A number of the families would have an understanding of it, but not a great understanding.

Staff and relatives had no prior knowledge of, or experience with, a household model of care. The concept was new to Ireland. The impetus for change was driven by the nursing home Executive Directors, which paralleled the approach of Steve Shields himself (Shields & Norton, 2006). NH1 described their sense of mission as endeavouring to create a 'sense of home' in order to transform their institutional environments into better person centred environments which focused on the individual. Both unit Executive Directors had initiated preliminary conversations with staff and families and had concluded that there was "a general consensus that this is the right route to go", giving the impetus to make the physical renovations. The most important physical change was the installation of a kitchen unit to be the hub or heart of the household units.

Executive Director: There was no identifiable heart. In a home there is always an identifiable place where most activity took place. And that was usually around the kitchen... There will be less time spent isolated in their bedrooms.

The goal of the renovations was to refocus from a task oriented service to a person centred service. The objectives, as stated by the Executive Directors were to:

- create a happier experience and sense of belonging for the residents,
- increase satisfaction levels from relatives and family,
- create more interaction between residents and relatives,
- create a more relaxed experience, particularly at critical points of the day associated with the provision of food, and
- decrease task driven behaviours within the unit.

Because of the uncertain economic and regulatory environment and the newness of the household concept to Ireland, the changes were instituted in a phased manner. The monitoring and feedback allowed for modifying or terminating changes if they were not right. However, the goal was always the provision of a more person centred and homelike environment. On the management side, the biggest threat to the implementation of the household model was the uncertainty in the funding and contract specification mechanisms. There was a risk that if things did not turn out as expected the nursing homes would lose income.

The Executive Directors were aware that there was an institutionalisation of staff attitudes within their nursing homes and that, alongside the physical changes, other cultural changes would need to be nurtured. Both sets of managers brought in training during the pre renovation phase.

6.2.1 Executive Director Summary

The Executive Directors had initiated the changes and demonstrated their firm commitment to a change in culture for the benefit of the residents in the interviews. They spoke about their plans for the renovations and the importance of developing person centred care alongside the physical renovations.

6.3 RELATIVE INTERVIEWS

This section describes the views of the relatives on their family member being admitted to the nursing home and what they thought were the important issues for a unit for people with dementia.

The relatives had been informed about the forthcoming changes. However, they found it difficult to conceptualize how things could be better or different.

This is consistent with the research of Parker-Oliver, Aud, Bostick, Schwarz, & Tofle (2005) which concluded that, generally, relatives do not distinguish the impact the environment and social culture have on quality of life issues. In their research they found that the physical design made little difference to relative satisfaction. They concluded that the issues which were of most importance to the relatives were day-to-day practical and functional issues, like laundry mistakes, loss of items of clothing, lack of activities and staff shortages.

In this research, the relatives could imagine how a functioning unit kitchen would make a practical difference to their visiting. The relatives had a desire for a more inclusive and welcoming unit. They imagined how making a cup of tea for themselves and their family member would change their interactions and make them feel a part of the environment. This would make the unit more hospitable and welcoming and more socially engaging for their family member.

6.3.1 Purpose of Visiting

It was important for relatives to speak about the decision and the process which led to admission of their family member, and their appreciation and comfort in knowing the quality of care. Their visits to the nursing home were important to them and purposeful, no matter how frequent or infrequent they were.

Relatives gave complex descriptions for the purposes of their visiting. Visits expressed love. They were an opportunity to make sure that all was satisfactory and that their family member was getting the care and attention they needed. This overseeing role was an important function.

Relatives had a desire to be involved in expressing care and affection to their family member. Bringing in food as a treat was a symbol of shared experience and interconnection. Some relatives were more practically minded and spoke about doing some activities with the family member that the staff did not do, or did not have time to do, such as going for a walk. Because they knew the family member intimately, relatives could direct situations and choices which reflected their intimate knowledge of the person. For others, visiting was an attempt to establish or maintain relationship for the time remaining.

Relatives spoke about the trajectory of the care relationship, with the family member first of all providing the care, then learning to receive the care of their children and, finally, being taken out of their own home and put in the care of strangers. They did not wish the family member to feel unloved or abandoned. This was a particularly potent feeling, as many relatives had had to make the inevitable decision to deprive the person of their home.

Daughter: Maybe it's a way of me feeling I haven't let her down, that I am there for her.

Daughter: I love him, why wouldn't I come? I want to be as close as I can with him. To be here for him and to make sure he is ok.

Daughter: To spend time before I lose her. Because I love her.

Son: We've not had a great relationship with me growing up. My father felt I didn't do as well as he would have liked. Now I find, I didn't do a lot for him then. Maybe I can salvage something now by making sure that I at least keep in touch with him and make sure that he is not left here to vegetate on his own. That I keep a link going and I'm always in and out with him and that he still has me there. I feel it is important for me as well as him that I come and make sure he is ok. It's more to mend those fences, problems that we have had over the years.

The visits were about relationship and the eroding losses of that relationship. There was recognition of family member losses, which were compounded by the institutional nature of the nursing homes. Relatives looked forward to any environmental changes that would lead to the betterment of their family member and of their relationship with this family member.

6.3.2 Dignity and Loss of Personal Skills

Many relatives spoke about their sense of loss of their family member as a unique individual. They wanted their family member to be able to continue for as long as possible to do things in a normal way and in the way they would always have done them. They saw the disease process gradually taking away the individuality and personhood of their family member, and they were sensitive to any changes which signified the loss of this dignity.

Daughter: It's a protective role. And to make sure he eats his dinner. Sometimes he tries to put something on the knife to eat. So the following day I made sure he had it all broken up and given to him. It's not nice to see someone eat from a knife. I would like to keep a stronger eye for them eating. Because I know daddy can't eat on the fork. And he is very proud and doesn't want to be spoon-fed. Dignity is the word. Don't take everything. Give them their dignity.

6.3.3 Loss of Sense of Control

Losing skills and abilities meant that the family member required more and more assistance. In addition, the institutional and routine methods of work meant that the family member became more passive as they received care. They were deprived of choice and control of their own lives.

Daughter: He is going through the motions. There is no purpose. 'I'm just doing it because I have to or because I'm told to.' He does say to me when I'm in the car, 'I'm afraid'. I think the confusion... he's out of control for where he is, where he lives, what he is to do next and, sometimes, who we are. And I think it's harder when you are there by yourself. If he could interact and do something during the day he wouldn't be so afraid.

Son: Three weeks ago he said he wanted to be home and make his own cup of tea. That was the first thing he thought of. If they had these facilities it would bring a little bit of home to them. It would help him to relax a bit more rather than feeling he was just

sitting and waiting for the time to go until somebody gave him his tea at four o'clock. To have that little bit of control over their own lives even in here.

6.3.4 Loss of Sense of Home: Familiarity, Belonging and Identity

The loss of home was an important issue for the family member. The decision to remove the person from their home and place them in a nursing home environment was a difficult and guilt inducing process. Even though they knew that they were unable to support the family member in their own homes, relatives still felt guilty. Therefore, they wanted to see the family member settled and feeling at home in this nursing home environment.

Daughter: When you do come down she starts to cry, she gets lonesome for being here. She says she would rather be at home. And she is not fit to go home.

Being at home means that the person is familiar with the environment and, therefore, able to make choices and decisions. Being able to make choices supports the sense of self, of 'who I am'. Projecting into the future, relatives anticipated that residents using a familiar household type kitchen would gain identification, participation and engagement, supporting their sense of individuality, of who they were.

Daughter: What else makes a home? Areas that a home would have like a kitchen area. Like a bedroom area. Like a garden area. Plus places where people feel secure and happy and wouldn't have any worries. So they know they are being cared for. Where people have their own personal things around them and they feel this is their place, feel they are part of it... A feeling of belonging. And feeling so secure and comfortable. Feeling part of it.

Daughter: A lot of our time was in our kitchens. So, daddy would associate himself with the kitchen. Before he came here, at home, he could make tea many times a day and not drink any. But he would sit at the table with the cup and watch the telly or sit with us. But he might not drink the tea. But he would make it and keep making it. That's what he associated with us when we went to visit was to make tea.

6.3.5 Loss of Interpersonal Connection and Intimacy

Relatives spoke about the good physical care which their family members received in both nursing home units. The physical and nursing care was excellent, the family members were clean and always in their own personal clothes. However, the relatives spoke of the lack of activity in the main living room areas where their family members spent much of their time. The staff were always busy elsewhere, and the relatives felt there was a lack of attention and personal contact in the main sitting room. Whilst the staff provided professional personal care intimacy, there was also a need for emotional intimacy and connection with residents and relatives.

Daughter: And if the person who is here makes a connection with everybody around them that actually makes a home. If I feel connected to the people who are here as well, I feel good. You feel better when you feel a connection with people. And you feel a part of what they are doing.

Daughter: There is no one actually just sitting holding her hand, talking to her... that someone would create a more personal relationship with them. Sitting and talking. Or even trying to do a crossword puzzle with her.... I would like staff to get to know mum and not treat people just as patients.... treat them like guests or visitors in a house. I hope that that would improve. ... I watched mum with home helps and she would like certain ones and I would watch what they would be doing and they would be the ones who would stop and talk to her and ask her how she was or are you watching anything on the telly. And then there would be other ones that would come in and change her bathroom wise, and you are alright? She would pick out people that she would prefer to deal with her and it's purely because they reacted personally to her.

Daughter: I think the whole layout of the sitting room is wrong. This thing about chairs around the wall. I don't think the chairs should be around. I know there is the safety element in it, but in our homes it's not like that. There may be a little coffee table between chairs where if you are giving them a drink there is somewhere to put it..... but do you entertain in your bedroom? No, you do not entertain in your bedrooms and I feel strongly about that one. Plus, I might come in the front door, passing maybe 15 or 16 people's bedrooms. We don't have that in our homes. We take people into your sitting room or your kitchen. Which isn't there. So, I think that the layout, as it is at the moment is very institutionalised and it's all sort of geared towards keeping everything easy.

6.3.6 Loss of Meaningful Activity

Relatives observed the sitting room full of residents staring into space or sleeping and were dissatisfied. Human beings are usually active. Depriving adults of activity is used as a form of

punishment in prisons. Dependent, passive and inactive behaviours define institutions like hospitals.

Daughter: Activities would make her feel part of the world again. That they are not just in a place put away somewhere were you are just being fed, changed, dressed, put to bed. That someone is taking an interest in you. If you want to do it you can do it. If you don't, sit and watch.... People left in chairs is not treating people as human beings. I don't mean that people are being abused. But they are forgotten that they are people. That they did have their own minds, jobs, their own way of doing things. And now they are just sitting and no one is encouraging them to come back out of it.

Husband: They don't really do nothing. They just sit there.

Daughter: It's like taking someone out of their life they have had for 85 years and put him into jail.

Relatives thought that domestic activities would bring a sense of familiarity and comfort to their family members.

Daughter: It's not that she is here to be minded. That's not the way I see things. I say give her the cloth and let her clean the tables. Don't feel that I would be offended. I would be delighted to see her do that sort of thing. I think it would be more interesting and it gives more options to do something. She worked all her life so she was active. Very independent. Extremely independent. And she reared myself and my brother on her own. So she was always doing. She worked until 10:00 at night. She was always go, go, go. I don't know if she remembers how to do it. Even when we are out she picks things up and puts them back up. That's just the way she always was. If she can feel as near to being normal or do things that she is comfortable with, I don't care what that is. I had a relative come in and she was cleaning the tables and they rang me and said 'Ahhh, I can't believe.' And I said, 'I'm delighted'. I was thrilled to hear it. That she took up the initiative and took up the cloth and cleaned the table. Because that was a huge thing.....I think she remembers, there is some part of her that remembers.

Relatives were also concerned that the family members were not getting the benefits of physical exercise, movement and engagement through undertaking activities such as walking.

Sister: I notice that she just sits. I took her out walking and she could hardly walk back. Just a little bit more time for them to walk rather than leaving them sitting all the time. I come back as often as I can from Dublin and when I do I go in and take her out to the front and walk her back and forth. Physical activity is extremely important. She lived with my brother on a farm and she was always used to being out and free and she finds

the confinement.... She's not very settled. I notice slowly and slowly the more she sits the more she can't get up....Activities would make her feel part of the world again.

Daughter: I think if he could interact more he would do more. I think that if there was something during the day, any interaction, any activity for daddy would be good, rather than lying in bed all day. Because he's always been active. And he's always been on the go and he's still so very fit and healthy. I think he would try harder to achieve something, even if it was to play a sheet of Bingo, if he could interact a little bit more it would not make him as lonely and his days not as long. And he might sleep better if he was active during the day.

6.3.7 Social Interaction: Kitchen, Tables and Tea Routine

Relatives anticipated that a kitchen area with tables would be friendly and familiar and would aid social interaction. Being offered a cup of tea is highly symbolic in Ireland. When visiting someone's home, tea is always offered upon arrival. Not to have it offered in their family member's home, even if it was a nursing home, symbolized a discourtesy, a lack of hospitality and a statement about hospital, rather than home like, values.

When family members were first admitted, the relatives described feeling guilty and keeping to themselves. This was a particularly distressing time. They hadn't wanted to be there and they hadn't wanted their family member to be there. Relatives expressed a hope that the kitchen area would reverse the isolation they had felt at this important time for them. They also wanted to improve their communication with other relatives, at all stages of their visiting. Relatives would be able to support each other through the whole of the journey, but especially at the beginning phase. They spoke about making and sharing a cup of tea as being an 'icebreaker' for this process.

Daughter: If I was having a cup of tea and somebody else's daughter was there I could say I feel this. They might say, she did this or we did that. Yeah, that happened to me too. You are not there by yourself and not feeling so alone. We could talk to other people. Have a cup of tea. We are not in this boat by ourselves.

Daughter: You go into a house and you have a cup of tea. If somebody else was sitting at a table having a cup of tea, you'd nearly join them. It's easier to chat to people over a cup of tea.

Daughter: I would hope I would have more contact with people in the place – both staff and other residents. I would like to have more rapport with people. I feel when I come in, I see mum for a certain amount of time and then I'm gone again. People may or may not even know that I am there.

Relatives had been told that they would be able to make their own cups of tea and, if appropriate, to assist their family member to do this tea making task. This was appealing because it transformed their levels of independence, making them less reliant on staff and on a more equal footing with staff. They spoke of feeling subservient in having to ask a staff member to do this for them, especially if the relative had travelled some distance to visit.

Son: The staff are so lovely when they come around with the tea and they are asking if I want some tea, but they are under pressure. I wouldn't want anybody making me a cup of tea. If you have relatives that only come to visit every three months. It would be lovely if they could sit with her and I could make them tea and they could bring in buns or whatever. It's just what you would have done at his kitchen table. I think that's lovely.

Sitting at a table across a cup of tea facilitates communication between individuals, which is why people do it in every walk of life. The relatives wanted this connection with their family member through this shared occupation. The non-verbal aspect of this ritual was particularly important when language communication was poor. The interaction was socially remembered by their family member and provided a sense of shared routine and closeness. This activity was a symbol of lost times, of lost connection and intimacy: making the tea, sitting in the kitchen, discussing a TV program or the weather.

Daughter: It would be great if I could encourage her by making a cup of tea and her coming over and me talking about lets have some milk. Chat away and get her to do it with me. That would be brilliant.

Daughter: It's a thing about putting people at their ease. They talk more when you are sitting down with a cup of tea and you are at their level and you are face-to-face and if they don't want to look straight at your face they can look at the cup, but they can still talk.

The relatives had been told that they would be able to make cups of tea for themselves and jointly with their family member. This would make them feel as if they were of use, rather than being disempowered.

Daughter: Sometimes she has to have her thickener agent in it. For you to be able to do it, you feel that you are of use as well.

Daughter: It's a rush coming here from work and sometimes it would feel better to come in and do something useful, rather than try and talk to mammy, as she has difficulty with speech.

6.3.8 Expectations of the Household Model

The relatives wanted an area where there was a sense of privacy and space. In the main rooms, where the residents sat around the walls, they felt that they were in the way, obstructing the view to the television, feeling as if they would be overheard or their verbal interactions would intrude on others sitting next to them. Sitting in the open plan areas, with more space and more activity happening within the space, was expected to give a sense of being together, without disturbing others. The space was expected to provide privacy, choice and a non-pressured and natural non-institutional flexibility.

Daughter: If you are sitting around a kitchen table you are more inclined to interact with people. It makes it physically easier if they are sitting there, you know they are interested in chatting. Whereas if they get up and walk away, they are not. Then you would know.

Daughter: And you'd feel funny sitting on somebody's bed talking to them. It would be nice to have a place where you'd feel it is relaxing and you can sit and chat and it's not as if everybody is sitting around in a big circle and you feel as if they could be listening.

Daughter: I think it might be a better atmosphere because of things happening.

6.3.9 Expectations of the Kitchen Unit

Although relatives used the bedroom areas for visiting, this was not a matter of choice for them, but was a response to having poor communal areas in which to visit. This created difficulties for the families. A large family gathering for a social occasion meant that family had to be accommodated in the bedroom areas in shifts. Taking children, or family groups, into the family member's bedroom and sitting on the bed was considered inappropriate. The bedroom areas made direct one-on-one contact necessary.

The relatives thought that a kitchen and open plan space would be more useful for their own visiting. A kitchen was the familiar family visiting place. It would create a more homelike and open space into which they could bring children. It would allow a more flexible and easier type of interaction. It offered the possibility of social engagement with other residents and relatives.

Daughter: I think the kitchen part will, because I think it might entice him out of the room to go down to make tea. And if there is other people there, he might get talking or someone else having a cup of tea. Or even with us, we came and we went in, we could talk to other relatives of people and that might help him to talk to other people. I think he could just sit there, even with the cup and never drink the tea, but there would be people moving around. And when he'd be leaving the room, he'd be going to the kitchen to make tea, so that would be his purpose in going to that place. Because he still has to have this purpose of 'why am I going down here.' There has to be something at the end of it.

Daughter: My eldest son wants to come to see him but doesn't know what to say. And daddy says 'Do I know you? Who are you?'... he wants to come and visit, but doesn't want to come in. So he sits in the car and plays Nintendo. I think he could come into the sitting room, so he wouldn't have to be on a one-to-one with daddy. ...I think if the kitchen and the sitting room were together, he would go in and sit in a chair in the kitchen, but not to have to be on a one-to-one. It must be really hard for his grandfather not to recognize him. It's hard for me to take my son where he is going to be hurt. How do I explain? He just doesn't recognize him.

6.3.10 Relative Interview Summary

This chapter section presented the views of the relatives about the TMU environment and their ideas and hopes for the anticipated HMU. For the relatives the real issues were not the

physical environment, but how the new environment might assist them to recover some of intimate relationship they had lost with their family member due to their dementia and due to their removal to the nursing home. They hoped that the new HMU environment would help to rectify the personal losses experienced by their family member in purposeful activity, personal control, social interaction and sense of home.

The next section of this chapter gives the parallel interview data obtained from the staff members.

6.4 STAFF INTERVIEWS

6.4.1 Context and Setting

This section describes the views of the staff about the residents and relatives, and about their roles, responsibilities and interactions with them. It provides insight into how they view themselves and the purpose of their work.

The staff did not know the residents before admission to the unit and therefore they spoke, not about the experience of the residents in terms of loss, but in terms of deficiencies in social interaction, occupational engagement, and ability to make choices. Whilst acknowledging the need for stimulus, they didn't 'own' this as something which they were able to change (Chard, 2000), attributing the problem to pressure of work and other factors. They were aware of the happiness and unhappiness of the residents, but, again, attributed their lack of ownership of the problem to their need to focus on task accomplishment and their lack of training.

There were two important issues for the staff. One was the time pressure that defined their work and the second was the institutional task driven nature of the environment. Many staff spoke about the pressure they were under due to low staffing levels.

Nurse: So, everything is time constrained. And it is routine, in fairness. Because, breakfast in the morning. There is a lot of feeds to be done. Because we have a lot of walkers. So, to enable them to get food, fluids, whatever, you're spending a lot of time in the morning. That makes it harder, then, to get out the next set, which is their ADL's, their activities of daily living, and washes. Most Alzheimer's patients, you can't go in and just get them dressed and washed in five minutes. It can take an hour. Because they are taking off the shirt, putting on the shirt again, and all of that.

The staff who came for interview were open to the changes. They pointed out that they were part of a very good service and were even more proud to be associated with the household provision, which would place them at the cutting edge of service delivery for Ireland. However, they were not certain how this could be done with their current workloads and, how the physical changes would affect the day-to-day operation of the unit.

6.4.2 Problems with Current Layout

Space was at a premium for NH1 especially when the staff wanted to bring non-mobile people into the main sitting room in their large specialized seating, and when relatives were in the room. NH2 had a larger sitting room than NH1, but both sitting rooms had difficulty accommodating more than a few relatives coming at the same time. Moving people from one room to the next was difficult work, particularly if there were mobility problems. An open plan room would give more open space for the same footprint. Having a dining area in the living room area would mean residents would not have to be moved from room to room.

Care worker: At the moment we are taking people from one part of the residence to another in big chairs. It's physically very hard. Where if you are in a closer network, a smaller environment, it's going to be easier. Your work is not going to be as heavy and stressful. So the layout is going to be better.

Care worker: It will be handy to have your bits beside you. At the moment you are running in every direction and then you are leaving. There has to be two there all the time. It would be handy to have everything around you.

Staff were aware that residents spent their time sitting around the edges of the walls staring into space or falling asleep. This was an institutional space. Residents felt uncomfortable here and expressed this by trying to get out.

Domestic: It must be terrible if you are sitting there all day waiting for something to happen.

Nurse: Because, the old people never did anything wrong that they're closed in like a jail here.

Care worker: When you come in you see the chairs all sitting around. It's like a hospital or institutional setting. You don't have that in your sitting room at home.

Care worker: So, I think, if we can introduce anything that still looks more like their home that they have come from, rather than hospital as what a lot of the residents would refer to it as a hospital, they don't even see it as a nursing home, they see it as a hospital, and, that alone, probably is disturbing for a lot of them.

6.4.3 Uncertainty: Identifying the Challenges

Staff could see that there were potential pitfalls in the household model. They were already overworked and whilst their busy personal care work with residents would not change, even more duties were going to be required of them. Staff relied on routines and schedules to make sure all work was being done. If residents were given choices as to when they were to get up, staff anticipated confusion and more work. Dangers were anticipated when residents and relatives were given open access to the kitchens, and this would need additional staff monitoring.

Care worker: Well, unless there is more staff. You know. To be realistic. Because I still say that certain tasks still has to be performed regardless, whether it is household or non-household. Maybe it's the way it's done or the times it's done as might free up time somewhere along the line, but realistically, unless there is an extra staff put into it, I can't see a lot of change.

Care worker: The routines are going to be different, yeah. In my opinion, more difficult. If they are given a choice of when they want to get up, then all breakfasts are going to be delayed, and dinners are going to be delayed. You just won't know where you stand. If somebody gets up at 12:00 then you have to keep their dinner for them for whatever

time. People might be forgotten about that they didn't get their dinner. I think it is more difficult for staff.

Care worker: I don't know how it is going to work, especially with the Alzheimer's because they can't make decisions for themselves. I think they need routine. If you ask them do they want to get up, most of them will say no. And when will they get up? Some of them would like to lie in bed until dinner time. And then they will not be tired come night. And if they are up, they are going to keep everybody awake at night.

Care worker: If they are going to go over and put on the kettle and scald themselves, that would be a worry of mine. A lot of them wouldn't be capable of even washing up or making tea. You would have a lot to watch out for as well. That would be a bit of a worry. I don't know what is going to be in the kitchen. Will there be a dishwasher? There is going to be hot water. Somebody is going to have to be around there just to keep an eye on that or is it going to be secure so they can't go near it. Well I doubt that because then it wouldn't be like the home. I don't think it's a good idea with Alzheimer's because of the danger.

Staff were anxious about what the relatives thought of them. Working in an open plan room meant that they would be on display and open to criticism from relatives.

Care worker: But my fear is that they will be coming in and telling us what to do.

Care worker: But it's going to take time for us to get used to having them constantly there with us. We will feel we are being watched.

There was uncertainty concerning the change over and what it would mean for the jobs and roles of the different staff. At this time, staff understood that the domestic, care and catering staff would become generic workers.

Care worker: I would like helping a resident make a cup of tea, but I wouldn't like making the meals. I don't know if we are going to have to do that. Is it going to be sent down from the kitchen or are we going to have to do some cooking? I don't know.

Domestic: I just don't feel that I would be comfortable doing it, or I mightn't be very good at doing it. It's just something that I don't think that I could do.

But the overwhelming response was to try it, see what it was like, and be flexible enough to adapt and change. It would take time to adapt and work through the issues.

Care worker: I think all of this is definitely trial and error. And maybe to get the staff in the unit, to get their opinion and not dismiss somebody's opinion because you think, 'oh no, I don't think that is going to work'. Try it. It mightn't work. But there might be some little part of it that will work. I don't think it's going to work in a week or overnight. You can't sit down here and write down what is going to work and what is going to happen. I think it is going to be very higgledy-piggledy but you have to let it be higgledy-piggledy until it is all ironed out.

6.4.4 Expectations of Communal Open Plan Rooms

Staff were divided about the open plan communal living area. On the one hand, it would be easier not having to go through doors, especially with full hands or pushing someone in their chair or help them through with their mobility aid. The area would be much easier to supervise.

Care worker: I think it will be easier, the new layout. Because you are not constantly opening and closing doors, going through walls. In that one area where they are going to be based most of the time you can see them. If you are getting one of the residents helping you make a cup of tea, you can still see to make sure they are ok.

Care worker: It would be nice that some of the others that aren't involved can see more what's going on and what's being done. And sometimes it might be an advantage. We have to take them from one room to another. And they say no, I'm quite happy here. I think it's the thought of moving to another room kinda puts them off. So that might be an advantage if it's in the one room. It won't seem as if they are moving so far away from their cosy chair.

On the other hand, some staff were against the open plan area, seeing it as too open and not like a person's own home.

Care worker: I like separate rooms. Maybe it's more homey. I'm not too sure. It wouldn't give us privacy. There would be less privacy. If people are eating, there is going to be other people in the sitting room watching them eat and I know I don't like that at home myself.

6.4.5 Expectations of the Kitchen Unit

Unit kitchens would give greater control and supervision to the staff. And having all the food and equipment on hand would make serving the food easier. But most importantly, the provision of food and beverage would create a more home like ambiance.

Care worker: At least they would be in the one area. It would be easier to supervise. Putting out food, everything is there beside the kitchen, which will make it easier for the residents and the staff.

Care worker: Yeah, you won't be running as much to the big kitchen down here. If a resident is looking for a cup of tea, you know, you have to go all the way down, and sometimes you are nearly afraid to go into the kitchen because you know they are busy. At least, if we have our own kettle and a toaster, if you fancy a slice, a lot of them love just tea and toast. And then if we have our own kitchen, we will be able to do foods, serving foods ourselves.

At this point, the staff and management were anticipating that residents (under supervision) and relatives would have access to the kitchen. This would create a more home like ambiance and it would enable interaction.

Domestic: They could make their own cup of tea. They could make it a family atmosphere. And they could bring the rest of the family in and have a little picnic or something like that if there was a kitchen nearby.

Nurse: But if the kitchenette comes and relatives are allowed and patients, if they are well able, they are allowed, that's really very very close to a home feeling.

Care worker: I like the thought of the relatives can come in and out of the kitchen. Except there are times that we could be down there and, alright: 'Is there any chance that I can come in and have a cup of tea?' You could be busy. It's nice that they could have that open to have a cup of tea whenever they want. I think it is really comfortable to let them: 'You can use the kitchen if you want and have a cup of tea whenever you want'. Hopefully it will encourage them to come more often. Some of them may feel uncomfortable, that it is a bit of an institution. If it was like home and they were able to walk in and make a cup of tea and have a wee biscuit and sit down and relax with their relative I think it might help them come more often.

The staff thought that it would make the unit more friendly and inclusive for the relatives if they shared the use of the kitchen. However, they were also realistic about the challenges and the potential for danger, necessitating the need for operational procedures and policies.

Care worker: You are going to have the families or residents coming in to make a cup of tea. We haven't seen that. We ask them not to come in at mealtimes. Whereas when the new routine starts they are welcome at any time. They might want to come and have their dinner with their mum.

Care worker: Maybe some of them want to do something in the kitchen – make tea or wash up and you can help them with that. You would be interacting more with them.

One of the staff had experimented with the household kitchen principles. In the account below, she speaks about creating an environment that she believes will replicate the household kitchen and comments positively on the effect it has on residents. She comments on the hopes that she has for their future.

Nurse: But I put the table, I didn't set it, I just put the stuff on the table. Now I said 'I want one of you to set that table up' and they did it. And it was amazing. But the biggest thing that struck me was, I put the jug on the table and all of them initiated. If I do that normally in the dining room setting with everybody around me and all of the residents there they would sit there like this and expect me to put the thing in. That day 'do you want some?' 'do you want some?'. Refilled in their own initiation.... I actually sat with them and I had a cup of tea. I wasn't standing like the nurse. I was sitting down beside them like this. And I had a cup of tea. And one of the ladies poured me the tea. So you wouldn't differentiate me from the table. I could have been a daughter. And the conversation was brilliant. So that's what I would like to do, that's what I want.

6.4.6 Expected Effects on Residents

Staff were aware that things were not as they could be in the nursing homes, particularly with the social isolation, lack of participation and inactivity of the residents.

Care worker: We all come from a home. We don't come from an institution. So I really think, like, when you go to a unit like that and you see everyone sitting round in a circle for 12 hours a day, it's not a normal environment.

Staff could see the advantages of giving greater choice, flexibility and participation to the residents and looked forward to the proposed HMU changes this environment would bring.

Nurse: But I think the household will give them more freedom to have a control in their own life.

Care worker: If somebody doesn't want to get up, that should be their privilege.

Care worker: I go to bed and get up when I want to get up, I don't see why they shouldn't be given a choice.

6.4.7 Expected Effects on Relatives

The staff relationship with relatives was multi-faceted. Typically there was little communication between the relatives and staff, as the staff were busy with their tasks and routines and as they tried not to interfere with the relatives. Some staff felt that the relatives were critical of staff. With the household model, there was the possibility of greater integration between the staff and relatives. With few exceptions, the staff thought that this would bring both sides together by creating a more homelike and interactive environment. They anticipated that if relatives were able to make a cup of tea they would feel more at home and would not feel they were intruding into someone else's domain. It would be more natural and easy for the relatives to have a cup of tea in a household kitchen with their family member.

Care worker: Usually when the relatives come in they take the resident into the room or down into the conservatory. You don't really talk. You say hello, how are you. You don't really get to know the relatives. I suppose in some ways it would be nice to get to know them, but you don't.

Care worker: The relatives will be in this living area to get a cup of tea. There will be more to entice them into it. Sometimes relatives feel that they are intruding, that they shouldn't be in here, they should only be in the family member's room.

Care worker: It would depend on the interest of the individual and their family. The family are saying over the years, they would love somewhere where they could go in and make a cup of tea and they could sit down with their relative. It's what you do around the kitchen table at home. You have your cup of tea and you converse with that person.

6.4.8 Expected Effects on Activity

The staff gave examples of the importance of encouraging resident participation and interactive occupation. The activities that had most meaning for staff were the spontaneous interactions they shared with the residents.

Domestic: If I am below and there is some of them there and they want to help, I give them a cloth and they go around the dado rail and go right around and come back to me and they look to see where else and I show them another part to do and they go right

around again and do that and come back and if I am buffing, one of them wants to hold one of the sides, she holds one of the sides, and we let her go ahead.

Care worker: Because you can see it does make a difference. I took one of our residents we know is particularly fond of gardening. We just went to the flower bed in the middle of the yard. Even the feel of the soil on his hands. He had a real smile on his face. It stimulated something. If you could find out their different needs and what they like to do. I think it made a difference to him on that particular day. If it brings a smile to their face and makes them feel better, it makes us feel good.

Staff thought that the institutional model created passivity in the residents. Residents waited for everything to be done for them. In contrast, they anticipated that the familiarity of the household model would prompt resident activities, such as sweeping the floor, drying dishes or clearing the crockery from the table.

Care worker: It should change. It will be easier to be more resident focused. We have a man down there and he wants a cup of tea every 20 minutes. The very fact that you would be able to do that or we have one lady who likes to clear up after, and put cups away. Just to give her things to do and work alongside her. We have another lady who will put all the bits around the tables for the residents. She'd lift the cups after. She likes a wee bit of something to do. It would be good.

6.4.9 Expectations for a Homelike and Hospitable Environment

Staff stressed the importance of a functioning kitchen to a home or household, whether residential or domestic. They expected that a household kitchen was going to promote a spontaneous, casual and normal participation as the relatives acted to sustain their relationship with their family member.

Care worker: A kitchen is home. No matter where you go you want a cup of tea. If they come to your house, you make a cup of tea. It's the Irish way. It's familiar to make a cup of tea.

Care worker: It would be nice to see the relatives help themselves. It would be good that they wouldn't need to bother us or ask us. When they are going to visit their own mother or father at home they just don't go in and sit there looking at them. It makes you feel at home when 'You want a cup of tea, mammy?' and go and make it for them. I know it's the first thing I do when I go to mother's is put on the kettle.

6.4.10 Operational Issues and Culture Change

The staff could be described as being cautiously optimistic about the physical renovations creating a better living environment for the residents and a better working environment for themselves. From their practical experiences they knew that there would be some challenges that would need to be worked out. In many respects, the physical renovations were only the start of the process. Changing the operational philosophy and social culture would be the bigger challenge.

Pressure of work was a huge issue for the staff. They identified how their work was time driven. The residents had to be up, dressed and toileted in order to get their food when it was brought down from the main kitchens. Then they had to help the residents eat the breakfast before it got cold, and so on. Work routines focused on time oriented goals. This put pressure on staff to get everything done and to do their fair share as a team member efficiently and effectively. This meant that spending too much time with one resident meant that other team members had more to do. Being part of the 24 hour work team meant that certain work was expected to be done before the end of the shift. These issues led to a focus on task accomplishment and time guillotines, with both staff and relatives becoming habituated to set routines and time frames.

Care worker: I would hope for the residents and us it will be more relaxed. But I don't know, I can't ... it really is very very busy. In the mornings especially. Crazy.

Care worker: You do get very institutionalized. But, what you would like to do is try out different things, which you are not given the chance because you are institutionalized. It's five o'clock and tea time. It's six o'clock and so and so goes to bed. It's part of the routine.

Care worker: You know your day is going to end at a certain time and you are going to be finished and there is not going to be any hassle because you have your work done before you went.

Care worker: With this new household we are being told you spend time with the resident, then you give them more of a listening ear. I'm 100% behind that, but you have to find the time to do that. If you are spending all your time having to reassure one or two, there is another 16 left with nobody.

Whilst experiencing a level of uncertainty, the staff were able to imagine the new household environment and the likely challenges they would face. The staff expressed concern about how the new systems would be made operational and then internalized as new systems. This major re-direction in working philosophy had to come from the top of the organization.

Care worker: If it happens properly. I don't think a building and more space and more domestic facilities is going to change. My concerns – the first thing is that you have to change your thinking. That has to come from management. We would all like it. But the practical. Without more staff and without saying that people have to be up at a certain time, if you don't change that, if you don't ease up on too many rules. There are 18 high dependency people, if there are more staff there, it is easier to supervise.

Care worker: If you don't change your thinking, the actual building work and the space isn't going to change anything. You have to change the thinking. For instance, if we were sitting down having a chat with a resident, and we heard the boss was coming in, we jump up, not because we were caught, but because this was wasted time.

The staff were aware that creating a new physical environment would have little impact unless there were corresponding operational changes.

Care worker: If you were to ask somebody's relative they might say, structurally, it would be good because it's nice to walk in somewhere that's like somebody's front door. Maybe from their point of view. But then again they could walk in and still see the same thing happening. That's then no good. What's the point? They could turn around and say, 'What's the point? It's still the same inside'.

It was expected that there would be a need for greater coordination and vision of what was to be. For example, there needed to be consistency about whether or not someone was encouraged to use the kitchen.

Some of the staff were ambivalent about any effect that the renovations would have on their work. This was most often attributed to having the same jobs to do, the same number of people on the daily rotas, and the same pressures to complete essential tasks.

Nurse: It shouldn't change too much. The only way it would change if I am doing more activities with the residents and had more time with the residents to do social activities or hobbies, the only way it might change.

There was a sense of realism about many of the interviewees, who knew that the renovations were only part of the story. Basic decisions had to be made about such fundamental issues as the ability of residents to make decisions about when to get up in the morning

For the culture to change, there had to be an understanding of critical issues, discussion and training. There had to be a whole unit shift of work culture, moving from the focus on task completion and time guillotines towards a more home like and person centred household model of care. The building renovations were only the start of this process.

Care worker: Because you can have it looking bright, you can have this front door or whatever and you can walk in, but if it's not working right, what's the point? You're just wasting a load of money.

Care worker: It's not the building. The building to me is the last on the list. It's the staff and all will be working together first of all and then for the residents themselves. The building part to me is neither here nor there. You can have a nice building and front door and a nice whatever. But once you come in and unless it is happening inside, what good is that?

6.4.11 Staff Interview Summary

The change to the household model was very important to the staff group. They had an understanding of the difficulties of the current environment and had some ideas of how this could be improved by the proposed HMU environment. The concept of 'home' was often used to describe what they hoped would be achieved. They were uncertain about how it would affect

them and their job descriptions and were apprehensive about the operational policies and how allowing resident choice had the potential to increase their work related stress levels. Despite these reservations, they were cautiously optimistic about the changes.

6.5 CHAPTER SUMMARY

This chapter illustrated the TMU environments as described in interview by the Executive Directors, relatives and staff. Included in the interviews were positive descriptions of the TMU environment and the care provided. Some challenges of the current environment were also identified. The interviewees were aware of the proposed HMU environments and they expressed their ideas and hopes for this new environment.

The next chapter, Chapter 7, presents the views of the Executive Directors, relatives and staff about the post renovation HMU environment. In the HMU interviews, the interviewees reflected back on their experiences of the pre renovation environment. Comparisons were drawn with the HMU environment.

Chapter 7 describes the HMU achievements. The new environment is described as continuing to evolve. Areas are identified which need attention and development. The experience of being in the HMU environment was acknowledged as being qualitatively different from the TMU. This is reflected by the thematic divergence between the TMU and the HMU interviews; the same issues are not raised in the HMU interviews as they were no longer of concern.

CHAPTER 7: HOUSEHOLD MODEL UNIT (HMU)

INTERVIEWS

This chapter presents the views and opinions of the Executive Directors, staff and relatives about their experiences in the Household Model Unit (HMU) environment. Each interviewee had already been interviewed about the Traditional Model Unit (TMU) and the findings were presented in Chapter 6. They were able to think back and compare the TMU to the HMU. Based on their own experiences and knowledge, they were able to give an informed opinion about the success or failure of the HMU. Their viewpoints identify the strengths of the HMU environment, whilst also identifying views about how the HMU environment could be further improved.

7.1 MANAGERIAL CONTEXT

Post renovation the Executive Directors of both nursing homes acknowledged that their efforts had been successful, but were also aware of the need for continuing development. Pre renovation, their focus was on renovation and developmental tasks to be accomplished and the uncertainty of how things would turn out. Their goals and objectives were relatively focused and concrete. Post renovation, looking back over their accomplishments, they reflected on the work that had gone into the renovations, operational policies and culture change, the practicalities of working with builders, staff, and families, and the financial implications of the household model. The goals and objectives of the future were now in the present. The vision was still there and still compelling, but it had been tempered by pragmatic realities. There was a tangible understanding of goals and objectives and a realistic coming to terms with the current stage of successful achievement, while continuing to look ahead at how things needed to evolve further. Continuing to hold a vision of what they wanted to achieve was critical to keep the project moving and ongoing.

Executive Director: The household is really only starting. In terms of the deep cultural changes and the role clarification around the homemaker, the process is only starting.... The whole sense of purpose will change.

Executive Director: It is a vision I have and a lot of staff are now sharing that vision.

Executive Director: In other words, changing the structure, creating heart, creating an area where people will have space and opportunities to interact, will increase their well-being and the quality of their life.

Photo 7.1: NH1: HMU Open Plan Living Area



Photo 7.2: NH1: HMU Dining Area with Round Tables



Many measures of success had already been achieved. Residents who previously stayed isolated in their rooms were now coming into the communal living area. There were definite improvements in resident interactions in the communal living areas. There was more contentment, laughter, and activity. The Executive Directors saw more relatives visiting and heard their appreciation of the new front door entrance and the open plan communal living area. Children could be seen more frequently. In the opinion of the Executive Directors, staff were pleased with the benefits of the household and approved of their new work situation. In addition, falls and other recordable incidents had dramatically decreased.

Photo 7.3: NH2: HMU Open Plan Kitchen and Dining Area



Photo 7.4: NH2: HMU Open Plan Sitting Area



The strength of the household model was its home like appearance which made person centred care easier and more natural. The domestic nature of the space prompted a more personal interaction, whereas the previous traditional environment prompted a more institutional and detached engagement. In this new domestic environment it was more natural to give choice to the residents, such as when to get up, what to eat and when to eat. There was a shift in the nursing home culture, with the person becoming the focus of care, rather than being a task to be completed at a set time.

The renovations had been important. They created an environment which was stimulating, which encouraged greater participation of both residents and staff in daily life. This led to the greater contentment and positive emotional expression of the residents.

There was an observable increase in the interactive and occupational engagement of the residents in the living area. One Executive Director reasoned that 60% of this increase was because of the attraction of the open plan layout where things were happening and everyone could be seen. This open space was now where everyone went. It became the hub and the heart of the unit. The other 40% of the attractiveness of the communal living space was attributed to the improved awareness and more engaging approach of staff. For example, pre renovation,

residents were routinely in bed early evening, whereas now they could be playing skittles or bingo with the staff until late.

Executive Director: The kitchen has brought a focus of activity, the main activity being around the meal time. The dining area has consolidated that focus. That area is a living space and a heart. The way that we have laid tables out, small activities can happen around the dining table. People radiate more to that area. Whereas before there would have been a loose movement of residents around the unit. Now there seems to be a focused area of activity.

Executive Director: And our concept of the kitchen being the heart of the home, it's reinforcing that. So there are more people gravitating to this area.

Photo 7.5: NH1: HMU Domestic Activity



Photo 7.6: NH2: HMU Homemaker



The homemaker role was developing. It had been important to distinguish the homemaker role from the care worker roles, so that the homemaker did not become involved in personal care duties. There was a general need to develop the skill base of the homemaker role, particularly the development of more interaction with the residents within the communal living areas.

Executive Director: We are only scratching at the surface of the role of the homemaker and the personal attributes of the homemaker and then the interventions and the quality of the interventions. But their approach has been hopefully around the person. And around making the place more comfortable and more homely. Rather than attending to a problem. If we put a carer in there, I don't think it would have so much impact. I think the homemaker is probably still grappling with the role and unsure of the role. But that is where we are at. The next phase is to build up their skills.

The desire was to have all staff become more involved in the residents day, undertaking normal domestic occupations with the residents in the communal sitting area, rather than leaving this to specialist activity coordinators. There was an emphasis on ordinary domestic occupations, such as reading a newspaper or sharing a television program.

Post renovation, relatives were more likely to spend time in the communal living areas and some relatives included other residents when engaging with their family member. All this stimulation and interaction meant that residents were more alert to who was coming into the room and what they were doing.

The Executive Directors spoke with appreciation about the staff. They saw them as dedicated, motivated and skilled. They considered that there had been increased job satisfaction, as staff were motivated by seeing benefits to the residents' quality of life. They noted signs of increasing professionalism, a greater willingness to learn and a greater confidence in professional roles and person centred care. The Executive Directors were strengthening this through staff development and training.

7.1.1 Challenges of Creating the Household Model

NH1 removed the wall between the sitting room and conservatory to create the open plan area. A small galley kitchen and a front door were installed. In the Executive Director's opinion, the resulting space was cramped, especially if there were visiting families also trying to use the space. Further expansion was planned for the future to correct this.

NH2 started with a larger footprint and was also able to extend into a garden area. The resulting space allowed freer unobstructed movement between the sitting and dining areas than in NH1. Light was let in by patio doors to the outside garden. The NH2 kitchen area was bigger

and better equipped to provide food and beverage than the NH1 kitchen. Both kitchens were centrally located to be at the heart of the communal living space.

The input of the staff was critical to the successful use of the post renovation space. There were challenges to change the medical model and institutional focus of staff and their routine and task based service delivery.

Executive Director: Massive change. You are pushing a massive stone uphill. You are really fighting against what traditionally is the way to do it. The medical model and the training around nursing particularly, and doctors, of trying to get them out of that way of thinking.

Executive Director: What we have tried to achieve is to take out the institutional way of dealing with the environment and creating a more homely environment. The principle is very simple. Kitchens are kitchens. Fireplaces are fireplaces. And seating is seating. But it is the challenge of making those work and de-institutionalizing the residents and staff, but particularly the staff.

Both nursing homes had increased the staff hours. One Executive Director estimated there was an increase of approximately one-third staff hours. This was balanced by efficiencies. Having a kitchen unit meant less travel to and from the central kitchens. Staff did not need to spend time moving residents who were not independently mobile from room to room to have their meal. The homemaker's supervision and assistance with food and fluid intake represented a better division of labour, eliminating the need for care staff to be in two different areas at the same time.

The extra staff time was an additional financial burden for both nursing homes. However, one Executive Director estimated that 50% of the gross cost of the homemaker's job could be absorbed by a reduction in the staffing of the central kitchens and by a reduction in staff 'footfall'. These footfall efficiencies were attributed to staff time saved by residents having their meals in the open plan area, rather than staff having to move the residents from the sitting room to a dining room. Footfall was also saved by having a unit kitchen, so staff didn't have to go to, and

wait on, the central kitchens. Nevertheless, service provision costs had risen from 56% of total income in one nursing home TMU to 62% of total income in the HMU.

A constant challenge within the units was the need to bring all staff up-to-date and to receive feedback communications from them. Special efforts were required to communicate with night staff or when staff were on holiday in order to relay important information. There was always potential for knowledge to be unevenly spread throughout the organization. It also meant that the feedback that these individuals could offer was missed. It was essential that staff felt they were being consulted and that they had a stake in the development of the service.

Some Executive Director's decisions were very difficult. There was the pressure of knowing that mistakes had financial and organizational implications. There was a need to make good decisions and to be able to wade through conflicting advice. The impact of making even small changes, for example, the locating of the television within the room, could have unforeseen consequences for staff or residents. The Executive Directors found that being flexible and adaptable enough to reverse decisions was the way to successfully manage the projects. In retrospect, the Executive Directors found that the pressure of running a business, creating change and moving forward had been challenging.

Throughout the life of the project there had been the inevitable doubts about spending the time and money, particularly as the TMU's were full and thriving. As a consequence it was important that the Executive Directors received positive feedback. Feedback validated their efforts and the risks they had taken and supported the vision that they were promoting.

The next two sections of this chapter present the views of the relatives and staff of the household environment and the renovations. Their opinions are presented about how successful

the renovations and culture change were. The interviewees describe the benefits and challenges of the HMU's, as well as the challenges of taking the model forward to the next level.

7.2 RELATIVE INTERVIEWS

The reasons for visiting – keeping up to date, making sure all was well, maintaining contact between other family and the resident, making sure that they were clean and well, and, to offer practical assistance, such as new clothes to wear – had not changed from the pre renovation interviews. However, some of the relatives were finding that they, too, were being supported by the visits. They were beginning to feel that they were not just relatives, but were becoming more integrated into the person centred HMU. Their visit had become more personal and more enjoyable.

Daughter: I spend longer here...the visits before were functional for me, because I had to give her her clothes and I had to make sure she was ok and she looked ok and there was nothing wrong with her and doing her grooming. Whereas now, I really miss coming in. Whereas before I missed coming in because I felt I had to be here. Whereas now I can come in and slump on a chair or sit on a couch or whatever. I don't feel in the way.

7.2.1 Open Plan

The relatives were very pleased about the open plan area. Both units were described as being less institutional, more bright and airy, and more spacious. The spaces were less institutional when compared to the pre renovation room with its chairs lined up along the wall.

Son: The hospitals in Dublin were grey grey grey. But here there is bright paint on the walls and it seems to lift people. Airy and bright. They have the sitting area, they have the dining area. And its all bright.

The open plan enabled their family member to see what was going on, to be oriented to the space and to move flexibly from area to area within it as they wished. The area no longer had a locked cage character, but seemed more free and open. At the same time, the relatives were

pleased that there was always a staff member in the room to visually monitor the residents to provide for their security.

Daughter: The interaction for residents, and let's say, mammy, has increased. Now it's all one area. So maybe mammy may not want to paint. But that doesn't mean that she isn't involved with the painting. Because she could be sitting in the living area and tip over and supervise them.

Niece: I couldn't believe the difference it made for the residents themselves. They were much more relaxed. They seemed to be happier. What makes the difference is that the staff are closer. They could all be in the same room and there is space for all. My own aunt, before this, would never have sat in the sitting room. But she took to the new sitting room and dining room very well. It really surprised me. I didn't think that she would adjust to it. She did.

There were other advantages for individual relatives. One son commented on being able to observe if his mother was engaged in an activity group or was eating, and, if so, he would be able to leave without disturbing her and return another time. He was grateful for this freedom and flexibility.

Several relatives found the space easier for children to visit. Previously, the TMU communal areas were uncomfortable for visiting, so relatives used the private bedroom spaces. The children found these spaces cramped, uncomfortable and too intimate. The open plan area offered space and distance. The children could use the space flexibly, colouring at a table or having a drink or playing a computer game, as they would at home, after having established the contact with their family member.

Daughter-in-law: Even for the children... It can be scary for them. Whereas if there are lots of other people going around, it doesn't feel that you are being channelled directly towards somebody and then they don't think that they are under pressure.

The open plan gave a more spacious feel to the room. There was more choice of seating, including the dining tables, so that relatives no longer had to sit on the arms of chairs or on a stool

as they had to do pre renovation. Relatives appreciated the choice of being able to go to the tables so as not to disturb residents if they were involved in watching TV or some other activity. Relatives had the flexibility to be able to choose where they sat, to avoid inconveniencing others or to obtain some privacy. As other relatives were now visible, conversations and friendships could develop.

Sister: We see more of other relatives and get to know them more. It's because they are sitting at the table and at the settees. And you are sitting closer to them and easier to have a conversation. If you are all in a line, it is not a welcoming thing. It's like a doctor's waiting room.

The relatives spoke of the comfort they felt being able to see the staff and to watch how the staff interacted with residents, knowing that this is how they would be taking care of their own family member. They were pleased that the mass movement of residents to and from the dining room was no longer necessary.

Daughter-in-law: It just doesn't seem such a large ceremony attached to get up from the living area, then be brought into dinner. Maybe less dependent. Less being brought from one room to another and just being helped from one area to another.... Being herded.... it's all the same space and you are not going through a door and it's not like a line being formed.

Both nursing homes had created front doors, leading directly from the outdoors into the main communal living rooms. The relatives no longer had to walk down long institutional corridors past the bedrooms of residents in other parts of the nursing home to reach the unit. The relatives felt empowered by being able to enter the front door and be able to immediately locate their family member, without having to search or intrude on others.

Daughter: I like the new front door. If I came to visit you in your house, I wouldn't walk past your bedroom. You wouldn't go into someone else's bedroom. It's not nice. If you are not visiting someone, you shouldn't be in that area.

Daughter: It's more personal. Before you had to come in through the doors. And then into a corridor. And you were wondering where mammy was. So you had to make a decision. Whereas now you are straight into it.

Relatives felt more comfortable interacting with staff. They could see if the staff were busy and wait until they were free. Previously they would have to wander down corridors to find a staff member and, when they were found, they would discover that they were interrupting them in the middle of a task.

Because everyone was more visible, there was greater opportunity for interacting with other residents, relatives and staff. The open plan area fostered inclusivity. Relatives got to know the names of residents and families, which hadn't happened before.

Niece: I sit down with a few of them before I leave. It's more like a family, more like a household. Some of the other visitors will do it. It is more like an extended family.

7.2.2 Kitchen and Tables at the Heart of the Open Plan Area

The kitchen was a welcoming familiar fixture. Being able to sit around a table was very homelike. The tables and dining area made it possible for all family members to get around one or two tables for a celebration. Other residents and staff could be included without getting in the way.

Daughter-in-law: Recently we are much more likely to stay in the main living area. Because I know we were having a celebration, and we had crackers and we stayed in the main living area. Whereas before we would have moved off to a side room..... Whereas now, it just feels more family like, like you would open presents in the company of other people.

However, for some relatives, the environmental changes were too late for the resident they came to visit. The cognitive deterioration was too severe for participation and engagement. For the relatives there was acceptance, but resignation and loss were also expressed.

Wife: I notice that some of the relatives were able to sit down beside their patient at tea time and maybe have a cup of tea with them. I thought that was nice that they can do things like that.

Sitting around a table with casual conversation was a very important means of participating in shared habits and rituals, creating a sense of intimacy and recreating shared memories. This was of the highest importance for relatives. There was a hesitation amongst relatives who were reluctant to encroach on the territory of the staff who 'owned' the space. Some relatives were keen that staff would do more to encourage other relatives to sit at the tables and make themselves more at home.

Son: I think it needs to be encouraged by the staff or management – to take the lead. Nobody takes the leadership. To tell people you can come down and sit with your relation, have a cup of tea. We want to make it as homely as possible.

Concerns

The relatives expressed some concerns about the open plan area. Too many people in the room could make it noisy and some residents would leave the room. Despite the increase in open and flexible space, it could still be hard for a large family group to get enough space around a family member.

Son: I can't get close enough to him. The chairs are tight together. Just to let him know that you are there. We visit in three's. If my father is there, we are crowding around. And impinging on someone else, discommoding someone else, vis-à-vis the television. When he is at the tables it is terrific. Now maybe we could ask for our father to move, but you don't want to discommode him because we are only down for half an hour or an hour. He is physically incapacitated. Once he is in that chair, you have to crank him up, set him up, put him in a wheelchair, and by the time that is done it is 10 minutes and then you have to go and get the nurse after you have done, which could inconvenience her.

Privacy continued to be an issue, although not as much as for the TMU interviews. There was the challenge of physically moving some residents to a more private situation. Even with the

more flexible space, relatives could feel that they were broadcasting to the whole room, especially if the family member had a hearing impairment.

7.2.3 Homelike Features

Many different features of the environment created a home-like atmosphere for different relatives. A home-like environment brought comfort to the relatives. Moving a family member into a home was a less difficult concept than moving him or her into an institution.

Daughter: It's the type of furniture. People will feel like, well I'm not in a hospital, I'm just sitting in a comfy chair somewhere. I think that will help everybody. If family can sit on a couch together, it will be more like it used to be...A household makes me feel I am coming to visit her in a more comfortable environment, a more comfortable setting.

Son: It's worked and worked very well. It's probably because what has been created is a home-like atmosphere. They physical presence of the place – the dining area, the kitchen, it looks like a kitchen, the living room looks like a living room. Ok, it's bigger than you have at home and there are more chairs and people in it, but it is like an open plan apartment, like home. It's well done.

A homelike environment was defined as a place where there was freedom and flexibility. The family members had lived for decades under their own rules and routines in their own homes. They were used to choosing what they wanted to do and how they wanted to do it. The chair and table groupings allowed people to choose where they sat and with whom. Domestic activities, like opening and reading family mail, could be done in a normal way utilizing a suitable chair grouping. Watching a favourite television programme nestled together on the sofa could be a shared experience again.

Daughter-in-law: In your own home, if you want to go and sit at the table, you can or if you want to sit in an easy chair, you can.

Daughter: But I can come in and watch Coronation Street with mammy, whereas I would never have done that before. I don't feel a visitor at all. Before, when tea was out, I was gone. Because I nearly felt that it wasn't my place, disrupting the flow of how they did things. Whereas now it's much more relaxed. I would sit there and feed mammy her

tea. Or one of the girls will feed mammy her tea and I'm sitting at the same table chatting away. But, you know, I would never have sat with mammy, never before.

There were some profound benefits attributed to the home-like quality of the units. People were known and acknowledged. Residents felt more secure. The household units were happier places.

Sister: She has this idea it is more like a home. She wouldn't go out on trips before the renovations. But since the place has opened up, she goes off now, no bother. Because, I think, it is like a house now, more like a home. She's much happier and more relaxed. And she always had stuff ready to go home before, and now she doesn't. She seems much happier.

Daughter: It's a much more happier positive place to go in. Before I found I had to be in top form to see mammy. If I'm tired or had a bad day or upset by something, I found it very hard to come in. But even when I come in here tired or upset or after having a bad day at work, it's not as hard to come in.

7.2.4 Visiting Environment

On the whole, the relatives were pleased with the visiting environments. The units were friendly and happy places. They sat with residents at their tables. Staff were visible and they were less rushed and were able to engage with residents and relatives. In this environment, the relatives felt free and participated in the life of the units. It made for a much more pleasant visiting experience.

Daughter: I think the carers are in the area more. I don't know if there are more carers on or because they were in different rooms... it is very rare that there is not somebody up there. Whereas before I could be in 10 or 15 minutes before somebody would come in.

Niece: I did some hand massage. And it did calm residents down. And to feel free that I can do it. Before it was, oh, I shouldn't do it. Maybe I shouldn't interfere. I wouldn't have done that before.

Daughter: The household is better than I expected. Everyone seems more relaxed. I suppose we were very uptight. I think it is great.

7.2.5 Homemaker

Relatives were very positive about the homemaker role. There was always staff available to communicate with the relatives if there were concerns. The homemaker was a homelike domestic role that put relatives at their ease.

Daughter: Certainly the homemaker up there makes a huge difference. She adds a lot of personal touch, personal feel, to the situation. The fact that she is there most of the day and she is kind of in that area. So even if the nurse and carers are busy doing stuff, there is always somebody around.

Niece: And they took away the homemaker between 2:00 and 5:00 for a few weeks. But no activities were then being done. There was nobody in the room. And I know I did say it at the time. And then they started bringing the homemaker until 2 or half 2. And now they have the home maker until 9:00 at night.

7.2.6 Operational Environment

Relatives compared the TMU environments with prisons and institutions. In contrast, the HMU environment had flexibility in its operation. This was augmented by the relaxed look of the soft furnishings within the flexible empowering open space.

The TMU felt more like a business. As an example, relatives had been discouraged from attending around meal times, as it interrupted the staff effort of shepherding the residents to and from the dining room and then making sure everyone was fed. Relatives were relieved with the post renovation environment. With the larger more open spaces, friendly staff and absence of such rules, it had more qualities of a family home.

Daughter: (speaking of pre renovation dining room) it's not homely. I'm in the way here. These girls are trying to feed X amount of people. In this dining room, you couldn't sit in a couch, but you would have to come back out and wait in the corridor. It was more like a factory canteen. You would feel detached, that you are not included, that you are in the way. Whereas now they don't mind if you come in and you don't feel you are putting anyone else out.

There were inconsistencies around the availability of the kitchens to the relatives. The relatives had originally been told that they would have access to the kitchen units to make a cup of tea for themselves and their family member. Only a very few relatives felt empowered within this situation to use the kitchen for making a cup of tea.

Niece: I don't want staff running around and making tea and sandwiches for me. Because I think their job is to look after the residents.

Daughter: I was under the illusion that you could go in and make a cup of tea. And you could have a chat. Nobody uses the kitchen. And you can't just walk into the kitchen.... I thought the kitchen was going to be for the use of us, the family. And you could bring in mammy's homemade bread and we could all sit down and have a cup of tea and a bit of bread.

Daughter: I would always say 'Do you mind if I stick the kettle on?' there is an element of respect. I respect that it is their patch. I can't see anybody saying to me don't go in. When I go in, one of the girls will often say there is tea in the pot.

7.2.7 Culture Change

Effect on Residents

The reason for the existence of a nursing home is to care for its residents. The physical care was always exemplary in both TMU nursing homes. In the HMU there was an improvement in the cultural environment with the person centred change in culture. These operational improvements had affected the residents socially, occupationally, emotionally, psychologically and physically. Family members were reported to be more settled and happier. They were busier and more mobile. They interacted more. They were more stimulated.

Daughter: My mother seems so much more content in herself.... Before she was so anxious. She couldn't tell me what was wrong. She would just say 'please help me, God, please help me'. Whereas now there isn't any of that. The minute I come in all she wants is to hold my hand. Or whoever comes to see her, she's quite happy. And she can sit – she isn't doing half the walking. Or half the rummaging. She goes to the door but even if it was opened I don't think she will go out. She is very very content where she is.

Sister: It is more pleasant now visiting her because we see her happier. When another sister phones, she keeps on saying the house is lovely now. That's what she says on the phone. That's why she thinks that she is in a house.

Son: Mother is far more content in herself than before – her demeanour, far less restless, content. ... and that means for me that she is less of a worry. It's worked and worked very well.

Son: Whereas it used to be 'why am I here. When am I going home?' I haven't heard a word about it.

Effect on Staff

Relatives were aware of a change in the staff. They were less pressured and appeared happier as well.

Daughter: It's more upbeat and definitely more laughing and joking. It's happier. You can see staff communicating with each other differently. I think there is better communication between staff that I certainly didn't notice before. And I noticed everybody was watching the football match. It's more upbeat and happier. The staff seem happier. They don't seem as busy, even though they probably are busier. It was run, run, run. The pace is a bit more relaxed.

Social Engagement

There was a more social atmosphere in the household environment. Relatives had more interaction with other relatives, and also with staff and residents. This was attributed to the more homelike and better designed spaces facilitating spontaneous interactions, as well as the more relaxed homelike ambiance.

Daughter-in-law: It's kind of good that there is more other stuff going on and other people. We definitely have interacted more with some of the other people here. Staff and other clients. Because they are there and part of it much much more. And it's not so deliberate; you don't have to seek people out.

Sister: It is easier to visit, as you can draw up a chair. It feels more spacious. Even though the space has not been increased, it feels that way due to the open plan. And relatives feel they can walk around.

Sister: The residents feel that they can talk to somebody else's visitor and they will shake your hand. Because there is much more of a family atmosphere."

Informal support and interaction was developing between relatives.

Niece: I have even gone out for coffee with one or two of them.

Niece: For example, one of the resident's family had her hip done. And I said that I would say hello to her mum every time I came in. After a week, her mum would give me a hug or kiss every time she would see me. For her daughter, it put her mind at rest and she would text me at the beginning just to see her mum was ok. It stopped her from worrying. Even though the staff are excellent, it was a little extra for her. A year ago that would not have happened.

Interactive Occupation

The spontaneous self-initiated activity levels of the residents had increased. Some residents became involved in domestic occupations. Relatives were pleased to be able to see their family member become more active and participate.

Sister: You notice the residents walking around more. They go to the kitchen or to the tables, they sit at the tables. They go back to their chair. I think they walk more because it is more accessible space for them.

NH2, daughter: They give her the cloth and she helps them wipe down the table.

However, while HMU interactive occupation levels were greater than in the TMU's, it was still a challenge for the HMU's to provide opportunities to become engaged with activities. Relatives wanted the residents to be occupied and interactive. Staff motivation and stimulation is important in maintaining the ability of residents. The lack of activities was an emotional issue for some relatives as the loss of ability was associated with the loss of dignity.

Son: There is no niceness to come down and visit a home with 20 people with dementia. There is no niceness about it. You see a lot of old people just sitting around, I think it is sad.

Niece: The people were falling asleep because they were bored. They were bored because there was nothing else for them to do. And if that was me I would have done exactly the same, falling asleep. And then at night time, not sleep that well. And then getting agitated.

A few relatives had volunteered to lead sing songs or play musical instruments. There was no coordinated effort to guide relatives in how they could use activities to interact with their family member.

Son: We would absolutely, without a shadow of doubt, be interested in doing table top activities with him if given guidance.

Niece: I remember one day when the home maker was not there. Everyone was asleep. And that's what really drew my attention to it, was that people were sleeping. And somebody said to me 'They want their sleep'. But if you let them sleep at that time of the day, they will sleep. Whereas if you are trying to do an activity to keep them awake, they might sleep better at night. So I started to throw a ball. And within 5 minutes, not even two minutes, heads lifted and there were smiles and they took on to throw the ball. Even if that was for 10 minutes, smiles, people were happy.

The role of the homemaker was envisaged by the Executive Directors to undertake activities with residents when not engaged in kitchen and support tasks. Several relatives spoke about the need for specially trained and skilled activity staff who would be able to give their full professional attention to this important area, rather than relying on the homemaker who was primarily engaged in kitchen and support tasks.

7.2.8 Relative Interview Summary

The relatives gave a broadly positive view of the HMU's, identifying the kitchen and homemaker as important innovations. Comments were made that the open plan felt more like a family home with its front door and its freedom and flexibility. They were very pleased about the effect it had on their family member, and how the residents and staff seemed happier.

In the next section, the last of this chapter, the staff views and opinions on the household model are presented. Spending their working days on the unit, the staff were able to give detailed, insightful and rich reporting. Many of their themes overlap with the themes of the relatives above.

7.3 STAFF INTERVIEWS

This section will describe the range of views of the staff on the HMU's. The physical renovations are described first as they are the foundation upon which all the other changes rest. This section then gives their views on the work, operational, social and interpersonal and, finally, the living environments of the household models.

This chapter distinguishes the impact the person centred household model of care had on the day-to-day work of the staff. It describes the staffs' perception of what it was like to be within the household environment. Theirs was a crucial viewpoint, as it was based on the reality of their real world day by day working presence within the household units. This section gives their views on the work, operational, social, interpersonal and general living environments of the HMU.

7.3.1 Open Plan

There was widespread approval of the open plan area with the kitchen as the central hub. The open plan meant that there was more room for manoeuvring wheelchairs, mobility aids and hoists. Opening up the space brought more light into the rooms.

Care worker. It's brighter and lighter and space, I think even physically for the room to be that much lighter, lifts the whole thing. It just makes everything so much nicer. It's good.

Care worker: It is easier because you have more space and more room. Even in the dining room you have more space to move around between table and chairs. And sit wheelchairs around them.

Care worker: We are proud of the new layout, of where you are working. Its working better: nice and bright and airy and plenty of space to do your job.

The open plan room meant that all residents could be accommodated in the one room without a sense of overcrowding. Having all the residents together built a sense of cohesion and provided more activity, life and stimulation for the residents.

Nurse: It is better because they are in one area. It allows them to be supervised because they are all together. There are more interactions with the residents. They can do more activities because they are centralized. Others can see and join in. When visitors come, everyone can see. If someone brings their pets or small kids it's a good change mentally even to watch and listen to them. Before they were all in different places.

Nurse: Because there are more times when staff and residents are together, there are more interactions taking place. The residents are talking more to each other. The visitors are taking the lead roles. The home maker is there. Something is always happening in the living room area. Now we have something happening every day.

Before the renovations there was a large open space with chairs situated around the walls, as in a doctor's waiting room. The staff noted how the informal open plan design of the HMU made a better environment for relatives to visit. They also noted the psychological value of having a front door to the unit leading directly to the open plan area. Pre renovation, the relatives had to reach the unit by walking down long corridors within the nursing home.

Nurse: Before, there were so many chairs in the sitting room. If residents had visitors, they couldn't comfortably sit and talk to the resident. Now it's more spaced out. But they seem to have more space to have a conversation. Or if there are 2 or 3 visitors, there is enough place for them to sit around the resident. They are not just stuck in the middle of the floor. A lot of visitors are reluctant to have the craic with the resident in case it interrupts someone else's TV viewing or conversation. I would think they don't think that they are invading somebody else's space as much.

Homemaker: It's nice when the visitors come in through the front door. They will speak to everybody who is there and the home maker. It's more like you are coming into a house and greeting everybody. It's the home maker that is greeting. Most of the family visitors will know all of the residents and will speak to everybody who is there. I feel it is more comfortable for them. It's not clinical. It seems it is not clinical. You are not coming into a nursing home. It is like you are coming into the entry of the front door into the sitting room.

There were practical reasons why the staff preferred the open plan as a work space. There was more room to manoeuvre. And having the residents in an area which was visually unobstructed meant that the residents could be more effectively supervised by the staff.

Recreational staff: I definitely think this open plan works for me, for art groups. There is T.... who didn't participate before. But she will come over now simply to be in company of the others. And when she can see and hear the craic if she is sitting on the couches, she'll want to be over.

There was one disadvantage to the open plan area. There were times when the staff needed more privacy for confidential conversations whether face-to-face or on the telephone. It could be difficult to find private spaces.

The communal living areas had to accommodate large specialized seating, hoists and several families visiting at once. In NH1, staff thought that, although space had been freed up with the open plan design, the area was still too cramped. The NH2 open plan area was larger and more accommodating and staff were satisfied with the size.

7.3.2 Kitchen and Tables at the Heart of the Open Plan Area

The kitchens were strategically placed so that staff working there would have good visual access to all parts of the open plan area. This prominent positioning of a functioning kitchen created a focus, hub and heart to the unit, greatly contributing to the homelike and domestic character of the unit.

Homemaker: It's important to see the kitchen area. It's the visual.

Care worker: When you come in you have the homemaker and your workers. It's more of a greeting and more personal. There is the smell of cooking food. It's more personal, that's the best way of putting it. It's getting more homely.

Homemaker: It makes it more like home to have the kitchen.

Prior to the renovations, residents were given their cup of tea and piece of cake or sandwich sitting in their chairs, which were located around the periphery of the room. This was done in a task oriented way, with no interaction between the residents and little interaction between staff and residents. In the HMU's, mobile residents took themselves to the tables where they sat across a table from others. This face-to-face encountering led to increased spontaneous communication between residents and any staff or visitors joining them.

Flexibility and ease of provision were important issues for staff. The kitchen was particularly successful because it was labour saving for the staff. In the TMU's, if a person wanted a cup of tea, it necessitated a trip by the staff to the main kitchens, which entailed exiting and entering through the locked doors while trying to carry a tray. Centralized kitchens dictated scheduled serving times for the whole nursing home complex.

Nurse: Its person centred care. Less institutional. The kitchen and the home maker makes a big difference. Anything and everything is simple for the staff, any time of the day. If the family comes and asks for a cup of tea, we don't have to leave to go to the kitchen. During the mealtime, someone may be in bed or at the hairdresser and it doesn't mean that we have to have a deliberate time for the meals. It can be kept in the oven.

Nurse: Putting in a kitchen is a good move, it is more homey. More than a hospital setting. They have the freedom to sleep on. It's like a home from home. Sometimes the residents may not have a good night or late to get to sleep. If staff are aware, they can let them sleep on. You can make a cup of tea. It is more like home from home. Not as regimental as a hospital setting.

Care worker: I noticed that everyone has their own place that they like to sit for their own meals. That didn't happen before. You just brought them in and put them sitting down where ever a place was available. And now they will go to where they want to sit. And they have a choice of menu. We go around and ask them what they want. They have the kitchen beside them and they can have a cup of tea whenever they want. If they ask, you just go in and make it.

Privacy was an important issue. The tables were semi-segregated from the sitting area. Sitting around a table or in grouped chairs in the sitting area gave a sense of privacy, without

having to leave the room. In contrast, in the TMU's, residents and relatives sat around the walls where all conversations were overheard, as people were so close together.

Care worker: The old way you had doors that were closed. When you went to the dining room tables, they couldn't see their friends because of walls and doors.

Domestic: There is much more room around the tables. Much more room to have privacy with your relative. Or if there is a birthday party and a large gathering of family, you can bring them into the sitting area and they can sit there themselves. It's much more homely.

Nurse: If relatives come in, they take the residents up to the table. The fact that they can choose, they are not confined to the sitting room area. The tables are there, the chairs are there. They have a bit of privacy, without people listening into their conversation. And yet they are still where they can watch what is happening. The tables are further away from the rest of the residents. The TV may be on, there may be activities going on, and they don't like to interrupt, and they can feel 'Oh, God, I shouldn't be here'. They can have their conversation around the table without feeling they are a nuisance.

The round tables were a more welcoming and less rigid shape and this encouraged flexible, spontaneous and casual interaction. The shape of these tables encouraged people to look at what was being done and, perhaps sit and join. People could easily walk around the whole of the table, rather than stopping at just one access point. Participants at the table did not feel hemmed between the table and the wall and this gave more casual choice about leaving and joining and made it more likely that people did join in. The tables gave better access for residents, particularly if they had mobility problems and needed assistance. The flexibility of the round tables in a non-cramped space also meant that residents, staff and relatives could freely wander over to investigate and wander back informally as they wished.

Recreational staff: Even the layout of the tables. You forget what it used to be like. The people came in and you couldn't walk around the tables the way you can the round tables. Even to come through, they would sometimes come around this way, but they would be stuck against the wall. So people didn't go around them as much. They would have admired the paintings, but they wouldn't have sat at all.

Homemaker: There were square tables in it and now there are round tables and that is much better. It is easier to get around. It's easier for staff and residents. There was a long table along the wall and some of them weren't great at walking and you are trying to get ones who were good on their feet to get in at the back, and then you tried to get in a wheelchair, maybe someone who had to be hoisted, it was quite cramped..... It's also easier to hand the food to residents without reaching across. It's also easier to feed a person.... And you are not standing over them, you can actually pull in a chair and sit beside them and give them a hand, instead of standing over them.

Concerns

Hygiene was a concern for staff, especially around food. Staff spoke about the need to encourage residents to assist with the household tasks. At the same time, they were aware of the risk of cross infection, especially from some residents who may previously have been handling faeces.

Homemaker: They do love to help out, but I wash down the tables or wash the delft again because you don't know where they have been. Even though I make them wash their hands first.

Another concern was the danger of residents creating harm for themselves while in the kitchen with sharp implements and boiling water.

Homemaker: The whole kitchen, you need space to put things..... You can't have residents in to help you, there is no room. It is too dangerous if there is a sharp knife, or a pile of plates or something hot.

Domestic: The layout of the kitchen is too small and cramped. There needs to be more space to put things behind the counter that the residents couldn't pick up.

7.3.3 Homelike Features

Both nursing homes had invested in sofas, chairs, curtains, pictures, and kitchen cupboards and implements that could be found in an ordinary home, so the household gave a homelike, rather than institutional, impression. The homemaker with the sights and smells of cooking augmented this homelike atmosphere. Staff found that they started to behave and interact less formally and more naturally, as they would in their own homes.

Care worker: I suppose it is more like sitting at home. If you have someone sitting at home, you are inclined to sit down and talk with them and get involved with them more. Before you were just in and out and had to do it and that was it. It wasn't like a living room or sitting room. It wasn't like a home really. It definitely feels now like your sitting room at home.

Care worker: And then the space and the smell of fresh food. It's more a home environment. It's better for residents as they get to know you. It's more personal.

7.3.4 Work Environment

This section describes the person-centred household work environment.

Care worker: I think it is more about the person, that's the best way I can put it rather than the task.

The staff thought the HMU was working better, that the work was easier and that they were doing a better job. They could spend more time giving a better quality of care to the residents. It was easier to care for the residents. They had time for personal interactions with the residents which made a more satisfying job. Staff were more proud of the unit and their work and were motivated to put in over and above what they were required to do.

Care worker: Easier to do the work. Because you have everybody in view and the kitchen is there and we are not waiting for everyone to come down with the food. We had to bring everybody down to the tables and they would have to wait for 15 minutes for the food to come down. So it's much better. They can see the kitchen and smell it.

Care worker: I think that they are more prouder of their unit than before. We had a few parties and some of the staff came in on their day off. That wouldn't have happened before. They feel it is their unit now.

Care worker: We look back at the old routine and we think how did we ever get them all up in time? Now we sit and chat with them while we are getting them up. It's far better.

Although the work tasks - assistance with personal care and eating, dispensing of medicines, writing charts - had not changed, the experience of the work had changed. Staff spoke of the stress and pressure they had been under in the TMU's with the time guillotines imposed by the

centralized kitchens. Having a unit kitchen eliminated this time pressure. The quality of their work improved, as did the lived experience of the residents. The frequency and type of comment from the staff indicated that being able to adopt unforced routines was a momentous change for them. Their work was less stressful and more satisfying. The quotes below reflect the importance of this topic.

Care worker: Yes, we are doing the same, but you are not rushing as much as we were before.

Homemaker: Before there was more pressure, because you had to kinda have them up for a certain time and lunch was at this time. Now there doesn't seem to be the pressure. You are going by what the resident wants. Now if they don't want a shower you don't shower them. Before you had to all go down for breakfast because it would be on a trolley. My work is more enjoyable.

Nurse: I think that it is that we are not under pressure to have everybody up for breakfast in the morning, everybody sitting at the tables around dinner time. There is not a constant pressure and yet everything gets done.

Care worker: It's much more relaxed. The work seems easier now because you are not running to a time schedule. You still get things done. You have the whole day and you are not rushing.

The unforced routines enabled the residents to make choices. The ability to carry out this person-centred approach was influenced by the new household physical, operational and social environments. By establishing residents' choices, the staff were reinforcing the individuality and personhood of the residents. As a result, residents were described as being happier and more relaxed and staff spoke of increased job satisfaction.

Nurse: Much less task oriented. Much more resident focused, residents have choice all the time. All the staff are in tune more and trying to think more and be more aware. Take more of the residents needs into consideration.

Care worker: But now we have more time and we can do everything that they want. We can sit, we can talk and know each other more. Now we can do everything very gently with the residents.

Nurse: We didn't know the residents' likes and dislikes that deeply, which we do now. The kitchen is there in the middle and we know what they like and how they like and would they like to do this or would they like to do dishes or gardening. Which was not there before.

7.3.5 Homemaker

For both HMU's, the homemaker role was new and additional to the previous staffing levels. There were discussions concerning the responsibilities of the post and how embedded it should be in purely domestic kitchen tasks, and how much the role could be expected to encompass providing various activities for the residents. What was beyond dispute was that the homemaker post was successful and had become an essential part of the operations of the HMU's and was an essential component of the more person-centred service.

The homemaker's role was centred on the food and beverage provision. S/he monitored if residents had eaten and gave assistance where necessary. It is noteworthy that no care staff thought that the homemaker should be obliged to assist them with their busy personal care roles within the unit. All were agreed that the homemaker should maintain his or her presence within the open plan area, leaving toileting and other duties to the care workers. The comments below demonstrate the unique contribution of this role.

Homemaker: The carer will leave to take somebody to the toilet. But the home maker can't. That is part of your role.

Homemaker: You are in the room, you are observing them, you give meals to them, watching what they eat and don't eat, who is eating well, who is not. And then you would be doing activities, like the papers and puzzles. Whatever is going on during the day.

Nurse: It's easier for the staff with everything being more open, more visible. You can walk and see everywhere. And the home maker being there, she is very involved with the residents. She will see things with the residents that staff will not notice.

Homemaker: The carers would be quite task driven. I'm not doing that role. I'm observing them, more time to observe them would be the biggest thing. You get more time.

The job role suited some homemakers very well. On the other hand, the personal care work was missed by some homemakers. Some homemakers focused on the food preparation and domestic tasks, while others spent more time on the interactive aspects of the role. Some staff found that the role suited them and some did not.

Homemaker: I love working in this unit. If I had to move from this unit I would leave quicker. I love down here. I didn't think I would. When you are doing housekeeping, you always keep your distance. If you see someone walking down the corridor, you'd tell somebody but you wouldn't actually go to help. This way you can be more involved. That's what I love. But I am still not doing very personal things. The toileting and so on. I don't like doing that. I always wanted to do it, but I knew I couldn't. It's a big change for me. I took on an extra day. I just love when they come in the morning for their breakfast. And you might have 5 minutes with one of them on their own and you'd have craic with them.

Homemaker: Some of the girls say they didn't like the home making job because they found it was just all about putting out meals and washing down. I don't find that. The residents interact with you when you do these things. And would come over. You could be at the sink and they come over and dig in right there and that is what you do in your own home. You wouldn't have a whole set of rules and regulations. You'd have a few. It's easier for me personally to do the home maker role. Life is easier because you are there with the residents when you do the tasks.

Care worker: The home maker role is tough. You have to spend a lot of time at the sink. I don't know how the girls have time to do the activities. The afternoon is not as bad. Mornings you might have half an hour from 12 to half 12. It's too much at the sink and washing delft and setting tables. It doesn't suit me. You come in and its all go. You might have three or four residents for breakfast. And then more come. And then lunch time. And cleaning. Maybe because I haven't done it before and I'm learning. Maybe because I have been caring for the last 10 years and you don't have the time for the residents. You'd love to be able to sit with them, and how they are having their tea, but a resident has come in and you have to give them their breakfast.

The homemaker role had become very important for the residents. They very quickly recognized the person and the role, distinguishing the homemaker from the other staff. His or her presence encouraged residents to stay in the open plan area.

Domestic: The residents are more relaxed and easy going. They are getting involved more with the staff. I think it is because the staff are there in the little kitchenette. The staff are there all the time.

Homemaker: The residents would get used to that person. It's no good seeing a different person every day. There's only two of us doing that job, different days. There is a few of the residents know that I do that job and they look for cups of tea.

Homemaker: They depend on you. They know you are there for food and drinks and teas. You are just there. There is one particular man who comes up and if I am not behind that counter he won't come near that counter. But as soon as he sees me he is up for tea. He has got used to having me there. Even if I was sitting out he won't come to me. I don't think the residents would like going back to the old way, sitting around the walls. Having their breakfast at the same time.

The homemaker had a very important role of being the staff member who was accessible to the relatives. They were a familiar face and were able to transmit knowledge and information between the relatives and the staff grouping. The relatives took comfort knowing that staff were always present.

Homemaker: It's up to the homemaker to instigate the greeting. The residents can't. And it makes the visitors feel more at home. Asking about what the visitors have been doing makes the visitors more comfortable.

Homemaker: You are not having a quick chat and running away. You are there all the time they are in the room. So you know them more and they are friendly with you. And you can learn a lot of things about the resident in that way. Which helps. You know who they are calling for when they are confused. The families are satisfied that you are there with them the whole day. You are the mammy of the house. You are looking after; you are there with them all the time.

7.3.6 Training

Adopting the household model created the opportunity for change. Both nursing homes had embarked upon some training before the renovations and were exploring further training post renovation. The staff valued the training when it helped to identifying issues of which they were not aware. They valued having practical solutions as to how they could improve their work.

Homemaker: And they pointed out stuff, like standing over somebody when you are feeding them, instead of on their level. Made us more aware of stuff like that. Not that it was intentional. Now with the household we interact more and we ask them more 'will I do...?' rather than jumping in and doing something. Or ask them if they would like to do something and respect the fact that they said 'no' they don't want to. Maybe we would have pushed the issue more, prior to household. We maybe felt you should be doing something with them, even if they didn't want to do it.

Homemaker: The thinking was more about task rather than respecting somebody's wishes. ...I think you do need to have some training. ...Now a good job is asking somebody if they would like help or maybe a good job could be encouraging somebody to do more things for themselves rather than take their independence away.

Homemaker: I think the household and the training makes us think before we do something. Prior to that we didn't think, we just jumped in. And assumed that they wanted X done.

7.3.7 Staff Role and Operational Changes

Existing operational policies had to be altered to create a functional person-centred household model of care.

Care worker: The job hasn't changed, but the way we do things has changed a good bit.

Each of the units was part of a larger nursing home complex. Pre renovation, staff worked throughout the whole of the nursing home. Post renovation, staff worked exclusively in the one household. This small regular work team created a sense of group cohesion and solidarity, which deepened resident, relative and staff relationships.

Nurse: You very much feel part of a team. As for working together, everything is discussed. We talk about the residents or work or whatever. It has worked very well down here.

Homemaker: For the staff to work with the same residents they get to know everything about those residents, their families, and the staff. If you are off a day and come back in there is not a massive change. Whereas when you were working all over the place you didn't know what was going on. And the families know it's the same staff.

Care worker: It's also better because the residents have the same three people with them the whole day.

Both units had appointed a household coordinator (Shields & Norton, 2006). This was a care worker who took on additional unit operational duties and was responsible for the staffing rotas and so on, which had previously been the responsibility of the nurse. There was also opportunity within this role to link with relatives. This was seen as a professionalization of the care worker role. The nurse's role became more focused on the professional nursing duties, such as charting, medication distribution, and wound management.

Household coordinator: My first priority is still as a carer. And just to make sure that everyone is looked after and their rooms are kept tidy. And look after the residents' well-being and make sure it is done. And a new job is to liaise with families. Which we didn't do much before. If the families have any complaints they would come to me. If the residents need anything we can ring up the next of kin and tell them what they need. I am a link between the families and the rest of the staff and management. But still my main priority would be caring.

The homemaker was an extra member of staff for the team. Having the homemaker post meant that the care workers could re-organize and re-schedule their work, knowing that there was always someone supervising the open plan space and that food and beverage would be provided to the resident no matter when they arrived. This reorganization and division of labour relieved work pressure in a more effective way than employing another generic care worker, who might eventually end up spending most of his or her time working with the team in the bedroom, toilet and shower areas. The presence of the homemaker remaining in the open plan areas eliminated the time guillotine pressures around food provision and the care workers could give their full attention to their personal care work. The changed operational procedures provided safety as residents were now supervised in the communal rooms.

Homemaker: It's easier with the home maker there. Because you are not having to run up and check about certain residents. So you are more relaxed and can spend the time with the residents.

Nurse: Yes, we don't have to have everybody up, get everyone fed, get the dishes back to the main kitchen. The homemaker puts the dishwasher on when she is ready. And she has time to get ready for the next meal. There is no pressure.

Homemaker: If I was a resident, I would much prefer to live here now. To me, it's more homely. It's not as task driven. I think it is more about the person, that's the best way I can put it, rather than the task. Its more person centred.

The HMU open plan space was attractive to residents. They tended to sit around the tables for their food and beverage and then gravitate to and from the sofas and chairs in their own time. This spontaneous, rather than orchestrated, movement brought a sense of interest and life to the room.

In the TMU's, the staff operated to rota which meant moving from one time guillotine to the next until the shift was done. In the HMU's, there was unanimous approval of the operational change to the more person-centred household policies, which allowed resident choice. The staff spoke positively about these operational policies, with their more flexible approaches. This more natural, less institutional operational environment was seen as being more personal and, therefore, more home-like.

Domestic: Before if they gave them breakfast in the rooms it was difficult for me to clean the room. They would give people breakfast in the room rather than take them to the dining room. Then sometimes they would bring people back into their room when they have had their breakfast. But they don't do that anymore.... People are happier to be sitting in the other areas.

Homemaker: That's a big change for them as well, that they are not being pulled out of bed. It's not a set routine. The breakfast is there in the kitchen area and they have until a certain time to have the breakfast. Before they had to get up because the breakfast was being wheeled around on a trolley.

Care worker: Because you have a home maker there in the dining area, she is there to assist with feeding and the other two carers plus the nurse on the floor can deal with getting everybody up and washed and dressed. The normal way you do at home. You don't sit at home and wait for your breakfast to come to you in bed. You get up, washed, dressed and go for your breakfast. It's more of a normal home feeling.

The management of both nursing homes created a homemaker role which was in addition to current staffing levels and had consequent financial and operational implications. Operationally, it was decided that these posts would be located in the open plan and kitchen areas. This operational decision had a profound effect on enabling the person focused culture of the household units.

Care worker: It's easier to do the work because there is not that stress of the breakfast trolley or the pressure of going up to get the afternoon teas. Before the changes there was a nurse and two carers. Now we have a nurse and two carers and a home maker.

Homemaker: The fact that they had to get up at certain times and they'd be grouchy, as we all would be if we had to get out of bed and someone told us we had to because it was a rule.

Concerns

Operationally, there was some confusion about the extent that other staff, residents and relatives could have access to the kitchen areas, or whether it should be the sole domain of the homemaker. There was confusion about Health and Safety and Infection Control issues and their impact on what was possible. The homemaker was a new role. Operational policies had still to be fully developed and clarified. The uncertainty was evident as the homemakers had differing views on what was, and was not, possible and what was, and was not, already happening.

Homemaker: Home maker is a new role. I don't think management have quite worked out what it is supposed to be.

Homemaker: If you had carers doing my role it wouldn't work. The carers are in bedrooms and bathrooms and all that. And if they went into the kitchen area. For hygiene reasons alone that wouldn't work. They aren't allowed into that kitchen area. There is nobody allowed into that kitchen area, only the home maker. It wouldn't work.

Homemaker: I think people will enjoy it when the role has been defined. At the moment there is a lot of domestic work involved in the home maker role. You are doing a lot of washing up. I didn't think that that is what they wanted it to be. If you are washing up you could be spending an hour and a half that you could be with those residents, not

doing a big activity, but sitting with them. Physical contact. I enjoy it but I find it tough. There is a lot of to-ing and fro-ing.

The operational policies concerning access to the kitchen, with implications for accidents and cross contamination were still evolving. The implications had to be worked through from many different levels, from the staff and relatives to the management and insurers to government organizations. Some staff thought that care workers should not access the kitchen because of their toileting duties and the risk of cross contamination. However, care staff would routinely access the kitchens during the night shifts or when the homemaker was on lunch break. And care workers were expected to handle food when assisting residents to eat at mealtimes.

Staff recognized that allowing residents to make choices was something they wanted to do and which was good for the residents. However, they were aware that some residents would be unable to make good and safe decisions for themselves, due to their disease process. There was a lack of clarity. This issue needed clarity and the involvement of the family.

Nurse: They can't judge for themselves what is right for them. You need to know what the resident will want from their history or the family or the care plan.

7.3.8 Culture Change

The staff thought that there was an increase in social interaction and occupational engagement between the residents, staff and relatives. Their views can be summed in the following ways.

- The physical building made spontaneous interaction more likely, as more people were remaining in the open plan area.
- The ambiance was more casual, with staff being available, rather than rushed.
- The round tables and the sitting room chairs and sofas made the environment feel more ordinary and home like.

- Participation, whether as a spectator or as an active participant, made conversation more likely.

Effect on Residents

Staff were very positive about the changes they had noticed in the residents as a result of the HMU. They described the residents as more relaxed, more socially interactive, happier, more settled and more content.

Homemaker: It's a much more relaxed atmosphere. The residents are more relaxed and not as inclined to pace and stay outside of the room. They would stay out of the room prior to the home maker being there. They would walk the corridors a lot more. It's because there is the staff in the room.

Activities therapist: They seem happier in themselves. There is a lot more movement in the place, rather than just sitting in one spot. Coming and going..... there is certainly more interaction between the staff and residents.

Nurse: More comfortable, more relaxed. More interaction between them. You see two ladies sitting on the couch and they look comfortable. And they can lie into each other. Or hold hands. I looked over one day and one lady was stroking the other lady's face. The human closeness. Whereas you put someone in a chair like this and it's a barrier. You would never see someone leaning over the chair to stroke somebody. Or to touch their face. Or to lie on their shoulder.

Domestic: I notice that they are doing more little things. And that they look happier. They look different. There is more of a 'buzz' about the place. If you say good morning to them, they are more chatty and more animated. Before they wouldn't want to talk to you.

Effect on Relatives

Relatives were more socially interactive with the residents and amongst themselves. Relatives would talk to residents at tables on their way to their family member. Being in the same room meant there was more conversation. Staff were aware that relatives were reassured by the increased supervision in the communal living area. Relatives also interacted more with staff, especially the homemaker.

Nurse: I do my writing at a dining table and relatives will come in and sit beside and you will have a conversation.

Nurse: I feel we are much more visible. Now there is always someone in or around, the homemaker and the staff. And I think relatives see that there is an improvement, that there is somebody there. The security of it there. And if they may have something to say.

Occupational Engagement and Social Interaction

Staff commented that residents were involved in domestic tasks in the household and concluded that this had benefits for the residents' well-being. The domestic style of soft furnishings and the domestic style kitchen unit prompted residents to spontaneously undertake simple domestic activities and prompted staff to encourage them.

Domestic: They can get involved in the washing up or hanging out the washing. And that makes a lot of difference for them.

Homemaker: I think encouraging the resident to do things for themselves is better. And maybe they feel better about it. If we do something for ourselves, most of the time we feel good about it. I'm sure they do too.

Homemaker: Some of them would wash up or do the cutlery or lay the table. Or sweep the floor.

Staff were aware of how the residents were dependent on them for interactive occupation and social engagement.

Homemaker: I find the attention span is minutes or seconds. But when you do get them to do something, if you are not there, they will just lose interest very quickly.

Homemaker: They have more interest in watching programs on TV because you have more time to say 'are you enjoying that?' or 'look at this'. Prior to that they could be just staring at that, but not enjoying it as much. but the fact that you are speaking about it, you get more eye contact, more smiles, more facial expressions.

The care workers were expected to interact when they were providing personal care and, if they had time, to talk with residents or do an activity with them. They felt they didn't have the

skill or knowledge necessary for providing activities, but they did incorporate spontaneous social engagement as they went about their various personal care tasks. Many staff thought the activity provision should be under the remit of the various recreational staff, activity coordinators and art and craft teachers.

Some homemakers felt they were expected to undertake formal activities with residents. The homemakers were divided as to whether or not they had time, training and ability to undertake craft and game activities. Some homemakers involved residents in the domestic activities associated with the kitchen area. While some homemakers were very creative and interventionist, others were more focused on food preparation and domestic tasks associated with the role.

Homemaker: Some management would think that it would be more activities and take residents for walks. In the spring time I would have done a lot of work with them in the garden. Potting up plants and we had some tomato plants. I think everybody has something to contribute to. That's what I would contribute as a home maker, doing activities, growing stuff. But I would also ask the residents' families what they like to do. What was their interests. So the ones that liked the garden and liked doing that you would encourage to come with you. You'd be trying to do things, put out the food and go to the other ones and talk to them about what is in the newspaper. But you would be up and back. You would be trying to do as much interaction as you could. But you would be moving from the role of serving food, to interacting with them or doing an activity with them. It can be difficult because if somebody comes in that needs the breakfast, you have to leave the activity to put out the food. And then maybe have to go and feed them if they need. That would be the first priority.

Care worker: The staff get residents to help with the sweeping up and washing up. So that is a great thing to get them involved in that way. Before they basically spent the day sitting around the place and going from the one meal to the next.

7.3.9 Staff Interview Summary

The staff view was that there was a great improvement in the work and living environment in the HMU's because of the implementation of the person-centred unforced routines. They could see the benefits for the residents and relatives. In parallel with the work of Parker et al. (2004),

they found that working in a more personalized, rather than institutionalized environment, created a greater job satisfaction.

The staff described how the residents were given choice and flexibility. The unit, with the kitchen at the hub or heart, was often described as being more homelike, and this affected everyone. In their opinions, living within the unit, visiting the unit and working within the unit had improved.

7.4 CHAPTER SUMMARY

There was general approval of the HMU environment. Whilst the Executive Directors were pleased at the change in person centred care and the physical environment, they were actively considering how the environments could be improved even further, through staff training, operational changes and improvements to the physical design.

The relatives approved of the more home-like soft furnishings and the open plan physical design. They found the atmosphere to be social and friendly, and noted that the residents were more active and content. They were aware of a reduction in staff stress, and were very pleased with the homemaker role and with the person centred care giving resident choice. They approved of the round tables in the dining area which offered both spaces for semi-privacy and for celebratory activities.

The staff were very pleased with the HMU environment, which they described as a more home-like environment. The most important issue for them was the reorganization of their workload and the offer of choice to residents, such as getting out of bed at times that corresponded to their previous lifestyles. They identified the importance of the homemaker role, the functioning kitchens, and the operational policies which were all required to be in place to

allow this resident choice to happen. They found their work was made easier, less pressured and more efficient by the space of the open plan area, the unit kitchen, the supervision of the homemaker, the extra staffing the post represented, and the round tables. They observed the increased interactive occupation and social engagement of the residents and attributed a greater sense of well-being to the residents.

The homemaker was important to the functioning of the HMU. The post allowed the kitchen to function effectively, which allowed flexibility and choice to the residents. And the busyness of the role attracted residents to stay in the room.

The observational data (Chapter 5) is combined with the interview data (Chapters 6 & 7) in Chapter 8 in order to discuss and analyze the data according to the typology components as discussed in Chapter 3. The successful attributes of the HMU's are examined, as well as the areas in which further improvements could be made. In Chapter 9 the information gained from each component of the HMU typology is applied to future policy, practice and research. This is followed by the final concluding chapter (10).

CHAPTER 8: ANALYSIS AND DISCUSSION

This chapter discusses the quantitative and the qualitative data of the preceding chapters. In doing so, this chapter will compare the Traditional Model Unit (TMU) and the Household Model Unit (HMU) environments and will define the changes that occurred. The data is examined from two perspectives.

1. The quantitative data establishes that there has been a highly significant change in outcome measurements attributable to the environmental change from the TMU to the HMU environments. The robustness of this assertion will be examined first.
2. The rest of this chapter will then explore the issues generated from the qualitative interview data. The purpose of this examination is to gain insight and a 'real world' understanding of the impact of the changes for these two nursing homes.

8.1 DISCUSSION: OBSERVATIONAL STUDY

The observational arm of this study adds to knowledge by analyzing the same units pre and post renovation. It is unique in its approach to this evaluation, looking at the whole environment and using interactive occupation and social engagement as the primary outcome measures.

Being able to assess two, rather than one, nursing home environments gives greater confidence in the results. It avoids the possibility of a single nursing home being unusual in some unforeseen way, which would lead to a misleading conclusion. Furthermore, combining information gained from two separate nursing homes undergoing a similar, but not identical, renovation process gives more breadth and depth to the data than reporting on one nursing home alone.

A major strength of this research is the use of outcome measures which are proximal to, or closely affected by, both the pre and post renovation environments. It is most important to be able to detect and evaluate the difference between a 'lifeless' environment and one which is animated and full of life; the final arbiter of the success of an environment is the animation and the life within it (Zeisel, 2005). This thesis takes interactive occupation and social engagement as the appropriate proximal indicators of the success or failure of a living environment within a communal living area.

Inferences are established when relations between variables are proved to be beyond chance by tests of statistical significance (Teddlie & Tashakkori, 2009) as in this thesis study. The transferability of these inferences will then depend upon the strength of the data collection, its interpretation and its consistency, and on how similar these described environments are to the other environments with which they are being compared (Teddlie & Tashakkori, 2009). Extensive written descriptions and photographs have been used and a typology for the HMU was created in order to facilitate real world comparison. The data trends of the TMU and the HMU data unequivocally support the contention that TMU and HMU environments are distinct, creating different behavioural responses from the residents, staff and relatives. The extensive qualitative interview data from management, staff and relatives corroborates these findings. The qualitative data clearly supports the HMU environment as a better experience of life for residents, a better working environment for staff and a more intimate visiting environment for relatives.

Creating a real-world case study, such as this one, contributes to a body of knowledge and adds to the body of evidence which will define, and thereby improve, interventions (Johnston & Smith, 2010). By defining the HMU environments, comparison and replication are enabled beyond this study.

8.1.1 Convergence and Robustness

The purpose of convergence is to determine agreement. Pursuing only one data stream may lead to error and a false conclusion. This is much less likely if there are two or more data streams which agree. This research used quantitative and qualitative data from two different nursing homes in order to find convergence, thus giving confidence to the findings.

As discussed in Chapter 4, the high confidence in the reliability of the observational data comes from the interrater agreement and the logical consistency of the outcome measure trends. Most results were highly significant ($p \leq .001$). In addition, these results were supported by the qualitative interview data, which gave a 'real world' confirmation of the positive changes from both staff and relatives.

Observing and measuring time use is a particularly good way to compare individual single cases, as these measures are able to provide both baseline and outcome levels for comparison purposes (Johnston & Smith, 2010). The consistency of the quantitative data in this thesis study gives evidence for the emergence of baseline trends for the TMU data and outcome trends for the HMU data. The robustness of this finding is given visual support by the charts in Chapter 5.

Another indication of the robustness of the research findings was the consistency in daily attendances as shown by the standard deviation (s.d.) from the mean. Despite the HMU having more than twice as many daily markers than the TMU, there was less daily variation in many categories. This indicates that the daily attendances and the daily aggregate in the various categories was becoming less variable and more predictable when compared to the equivalent data of the TMU's, despite the TMU having smaller numbers.

The quantitative observational data collection strategy was robust. Except for NH1 pre renovation data (only four days), it was collected over a month, with observations on each of the different days of the week. The information could have been gained in a dedicated week's work. Spreading it over four weeks made it less likely that data would be picked up which was specific to one week, such as might happen due to particular weather conditions or the absence of one staff member on holiday. And, sampling each day of the week excludes any unexpected intervening variables that pertain to a particular day of the week, such as might happen at weekends.

Proshansky, Ittelson and Rivlin (1970) describe how characteristic patterns and trends of behaviour are observed in different environments. Their extensive research, spread over years, provided them with the data suggesting that 'space utilization patterns persisted regardless of the patients involved' (Proshansky, Ittelson, & Rivlin, 1970, p. 29). Despite patients changing, on average, every three weeks on the ward environments they were studying, the pattern of utilization of the space remained constant. They labelled this phenomenon 'continuity of behavior' (Proshansky, Ittelson, & Rivlin, 1970, p. 30). Trends can be established for different types of environment, which remain fairly constant even when there has been a complete turnover of the resident population. However, if a component of the environment is substantially changed, this will have a knock on effect on all the other components of this environment. This will then affect and alter the behaviour of the people within the environment (Proshansky, Ittelson, & Rivlin, 1970).

Robustness in this thesis study is created by the volume of data. There was an average of over 450 resident daily markers in the TMU and close to 600 resident daily markers in the HMU (Table 5.1). With such substantial data, any one resident or one situation will not have an inordinate effect on the aggregated data. The daily snapshot markers for the staff were also substantial,

rising from approximately 50 in the TMU to over 100 in the HMU (Table 5.2) on a daily basis. In contrast, the data for the relatives (Table 5.3) was not robust, with approximately 15 daily markers in the TMU's and 30 daily snapshot markers in the HMU's. There was a large daily variance which was more than the recorded daily mean, making the variations very unreliable and preventing the data from becoming statistically significant.

The data from the interviews was substantial. There were 80 interviews all told, with 47 of these pre renovation and 33 interviews post renovation, giving confidence that there was a full and complete gathering of data. They were transcribed in full, giving access to the complete data set. The sheer volume of interview data collected gives confidence in a wide spectrum of results. In addition, because this data was presented with a minimal amount of interpretation, potential errors were avoided (Sandelowski, 2000).

8.1.2 Observational Data

There were significantly more residents spending more time in the communal areas of the HMU's compared to the TMU's (Table 5.1). There were significant increases in the Engaged & Interactive Grouping category, as well as the Social Engagement, Interactive Occupation and Independently Active categories. In contrast, the levels of the Non-Engaged Grouping category did not alter significantly. Residents significantly increased their engaged behaviours, but did not increase their non-engaged behaviours such as sleeping to the same extent (Table 5.1). The Engaged & Interactive and the Independently Active data (Charts 5.2 & 5.3) show very different trends for the HMU environments when compared to the TMU environments. These trends fit very well into the concept of consistent behaviour within set environments, as outlined by the 'continuity of behavior' theory of Proshansky, Ittelson, & Rivlin (1970) as discussed previously.

Chart 5.8 gives a visual illustration of a greater increase in activity and interaction than could be attributed solely to more residents spending more time in the sitting rooms. The staff and relative interviews confirmed that staff and relatives were aware of this culture change phenomenon.

The data trends obtained for the staff categories Interactive Occupation and Care Task (Table 5.2) did not reach significance, although significance was achieved for the Total Staff Markers, Social Engagement, and Work Tasks categories. However, both Grouping categories (Engaged and Interactive Grouping categories and the Total Non-Engaged Grouping categories) were able to achieve significance due to the aggregated quantities of snapshot markers. In essence, these statistics describe staff spending more time in the communal sitting room areas of the HMU's, with most of this extra time being spent in either work tasks or social engagement. This is confirmed by the perceptions of the staff and relatives as presented in the interview data discussions which follow.

The staff Non-Interactive category had very few daily markers (mean = 2.5 pre renovation and 1.0 post renovation, Table 5.2). These low daily markers preclude detecting a pattern, as only one marker more or less on a day would have an inordinate effect on the existing scores. The standard deviation was equal to, or greater than the daily mean, indicating a great daily variability, making the statistics for this specific category highly unreliable.

Charts 5.10 – 5.16 show an increase in the HMU staff interactive and engaged data. Chart 5.16 shows that staff in the HMU spent a greater proportion of their time in social engagement than in the TMU. At the same time, they spent a smaller proportion of their time in work tasks than they did in the TMU's. This dovetails with a less task driven and more person centred approach to the care of the residents by the homemakers and the new operational policies.

Interactive Occupation did not increase by as much as the Social Engagement category, suggesting that the homemaker posts were comfortable engaging socially with residents, but found it more difficult to undertake activities with them. In the interview data below, staff identify a lack of training and confidence in providing occupational opportunities for the residents.

The statistical data for the relatives showed a significant change only in the aggregated Engaged & Interactive category. Their day-by-day attendance increased appreciably, but did not reach significance due to the high level of daily variation (standard deviation). This also applied to the Social Engagement category. Whilst the Interactive Occupation category showed a marked increase, there were very few daily markers (1.4 TMU and 5.0 HMU; Table 5.3) with a daily standard deviation that was higher than the average daily mean (2.3 TMU and 6.4 HMU; Table 5.3), making these statistics unreliable.

Table 5.3 shows that whilst the Total Relative Markers category did not reach significance, relatives were more often present in the living room areas. The variability of the daily data precluded this data from being significant. Relatives spoke about the time pressures, home and work responsibilities and transport problems which prevented them from increasing their visiting frequency. It is probable that the increases in the Total Resident Markers were a result of relatives lengthening their stay, rather than increasing the frequency of their visits. This observational assessment was unable to distinguish between these two alternatives, as it only marks whether or not an unnamed relative is present, and not how long they stayed.

The Engaged & Interactive Grouping category (Chart 5.18) was the only statistically significant result for the relatives. Relatives were more engaged and interactive in the HMU environment than they were in the TMU environment.

On average, close to 90% of the time relatives spent in the communal rooms, both pre and post renovation was spent in Engaged & Interactive behaviours (Chart 5.20). In interview, relatives defined their visit primarily in terms of time spent talking to their family member, or occasionally, a staff member or another visitor. They were rarely seen to do an activity with the residents or to provide direct care.

8.2 DISCUSSION: DESCRIPTIVE INTERVIEW DATA

The next sections of this chapter will discuss the qualitative interview data. The purpose of this data was to enlist the views of the staff and relatives in order to assess the change between the TMU and HMU environments. The data is given more weight (and the data is more robust) because of the clear cut data trends of the TMU and HMU environments. The interviews do not need to convince the reader that change has occurred in the right direction. This is clearly established by the quantitative data. Rather it is the function of the qualitative data to determine how and why the changes occurred and to elaborate on the most important factors which created the changes. These important factors became the multi-component typologies as described previously in this thesis (Chapter 3).

The qualitative information is presented under the relevant multi-component typology headings. The most immediately obvious changes in the HMU environments were the physical renovation changes. However the HMU also required operational changes, which included the commitment of staff and relatives to new organizational systems and staff training. The full effect of the changes were dependent upon the recruitment of the homemaker and the organization of this role into the working and living routine of the unit. The change process encompassed the adoption of a more person focused care, including allowing greater resident choice. All these issues will be explored at length in this chapter.

8.3 COMPONENT: OPEN PLAN SITTING ROOM AND DINING ROOM ACCESSED BY FRONT DOOR ENTRANCE

8.3.1 Institutionalization versus Interactive Occupation and Social Engagement

Pre renovation, residents sat in communal sitting rooms, often parallel to each other with their backs to the wall. They waited passively for something to happen, such as the provision of a meal, service from the tea trolley or stimulation from the activities coordinators, and were often staring into space or dozing. Post renovation a striking change occurred. Residents became more active within the communal open plan spaces. The Engaged and Interactive Category behaviours for residents changed from 24% of the time residents spent in the room to 41% (Chart 5.6).

Photo 8.1: NH2: TMU Sitting Room



In the TMU's, the residents went through a door into a separate dining room for their meal. Staff physically shepherded the residents into the dining room in an institutionalized manner such as would be seen in prisons and schools. This was a potent and obvious symbol of how people were disempowered by staff efficiency and how this resulted in individuals becoming passive and institutionalized.

HMU, daughter: It just doesn't seem such a large ceremony attached to get up from the living area, and then be brought into dinner. It doesn't feel quite the same. Maybe less dependent. Less being brought from one room to another... Everybody has to get up. Being herded. Now it's not the same because it's all in the same space and you are not going through a door and it's not like a line being formed. It's more fluid. There are no doors. There is not a sense of having to make a choice... Having to remember... Having to find... And you can also see what other people are doing. So it's not as isolating.

The precise way in which people occupy themselves and engage with others depends on the environment in which they are placed (Danes, 2002, McAllister & Silverman, 1999). People with dementia are particularly prone to institutionalization, as they lose their self-initiation and ability to interact independently with their environment as part of their disease process (Perrin, 1997a). In the HMU environments, residents were significantly (Table 5.1, $p \leq .001$) more likely to make use of the main shared spaces and were significantly (Table 5.1, $p \leq .001$) more likely to be occupied and socially engaged.

8.3.2 Introduction to Open Plan Areas

HMU residents spent less time in their bedrooms and private spaces and more time in the open plan room and activity hub (Table 5.1, $p \leq .001$). They did not need to spend so much time in the privacy of their bedroom spaces. The grouping of the tables, sofas and chairs, was enough to create a sense of intimacy and semi-privacy for the residents.

If an environment succeeds in being busy and active, it will be attractive to individuals. As an example, at a house party people often crowd into the already over-crowded kitchen, because that is where all the action is. The open plan HMU areas were attractive places because of the activity, movement, people and spontaneous interactions. They became 'the place to be'.

HMU, son: My father integrates more now. Before this he used to be in his bedroom... he seems much happier. And he appears much more at home. He doesn't keep going on about going home. He feels more comfortable. I think the place has brought everyone together. He loves being among people. Before it seemed a bit scattered. You go down some evenings and there wouldn't be anybody in the living room. They would all be in

their bedrooms. Now it seems a real get together. You have something going on. You have some character going around. Everyone is having a bit of banter. The carers and the residents. It is an area that generates a bit of a buzz. People like that, they want to be in it. They want to be there. And the curiosity of what is going on.

8.3.3 Open Plan: Resident Enablement

There is a need to evaluate how environments can actively encourage pleasurable and satisfying behaviour (Chalfont & Rodiek, 2005). This research contributes to this knowledge. The open plan area was a successful enabling environment for the residents; an environment where there was stimulation and opportunity for spontaneous interaction and engagement. The open plan nature meant that residents could see the sitting area, the dining area and the kitchen area. They were oriented to the space and to what was happening within it. This prompted and enabled them to choose when and where to interact and engage on their own or with others, which is one of the few ways that individuals with dementia are able to control their environment (Werezak & Morgan, 2003).

Daughter: It's probably less confusing for her because everything isn't completely changing for her when she moves between one thing and the other.

8.3.4 Open Plan: Stimulating Occupational Interaction and Social Engagement

In the open plan room the residents were enabled to make choices of where they wanted to be within the room. They could join an activity at the tables or wander over and watch. Residents were prompted to use their own volition to move from the sofas to the tables by the motivating and familiar sights, sounds and smells of food preparation. Even if residents chose not to participate, there was still the sense of things happening, of movement and stimulation, and of being in an 'alive occupational space' (Hasselkus, 1998).

HMU, sister: You notice the residents walking around more. They go to the kitchen or to the tables, they sit at the tables. They go back to their chair.

HMU, nurse: But she will come over now simply to be in company of the others. And she can see and hear the craic if she is sitting on the couches, she'll want to be over.

During one of the observational sessions in the TMU, a birthday cake was presented to a resident with great commotion and fanfare by an Executive Director and staff. Most of the residents did not raise their eyes to look and the ones that did showed little sign of sustained interest. In contrast, when a similar presentation was made in the HMU by the same staff and in the same manner, most residents within the room watched the event unfold with interest. The contrast was striking. Other research articles describe a similar increase in resident awareness of their environments in more homelike units (Nakanishi, Nakashima, & Sawamura, 2012; Reimer, Slaughter, Donaldson, Currie, & Eliaszie, 2004; te Boekhorst, Depla, de Lange, Pot, & Eefsting, 2009). In contrast, in more institutional surroundings, residents are more likely to cut themselves off by retreating into absent staring and in sleep behaviours.

The HMU environment stimulated natural interactions. In this study, HMU residents became more aware and more interactive with their environment. They purposefully moved around in order to do various things, which gave a more unstructured feel to the room and which stimulated conversation and interaction. Interactions which are spontaneous, as opposed to being programmed, are more meaningful, more personal and more energizing, and, as a consequence, are more likely to reoccur (Danes, 2002; McAllister & Silverman, 1999). This was confirmed by the observational data. The residents did more for themselves, became more socially engaged and became more interactively occupied (Table 5.1; $p \leq .001$).

The open plan encouraged residents and relatives to investigate what was going on in the rest of the room and offered opportunities for domestic occupations. In the HMU's the residents wiped down tables, got up to get their own cup of tea from the kitchen, and folded napkins. The

round tables also allowed people to easily join others sitting around the table, whether it was for a meal, a celebration or a craft activity. During one observational session, residents spontaneously grouped themselves around an electric keyboard placed on the table which was programmed to play old time familiar songs in order to sing along.

HMU, homemaker: We have had a few shockers. We have a few residents who would never have got involved with anything, that would have just sat and stared into space, now would get involved. Residents, who would never have got involved in Bingo, now struggle but try their best. And the arts, the residents that never picked up a paint brush love doing it now. And know that they can do it. And also you have the bus trip every week. There is residents going on that that would never have left the building before.

8.3.5 Open Plan: Relative Enablement

In the TMU's, the relatives felt disempowered because they did not know where their family member was, necessitating a search. They spent time sorting out where they needed to go and what they were going to do once they got there. In contrast, when the HMU relatives came into the room through the front door they were immediately oriented to where their family member was, because most residents remained in this area and because formal activities and ongoing staff interactions happened in this space. This experience made the relatives feel self-sufficient, more in control and more independent.

Relatives described how the HMU environment felt more friendly and inclusive to them, as if it were a large family home. Relatives came in at the front door and could see most of the household residents. This is reminiscent of most homes where a visiting relative expects to locate their family member without having to search up and down hallways and rooms.

Daughter: I like the entrance. You have your own door, to go in. The same coming out. It's like popping into someone's home now.

Photo 8.2: NH1: HMU Front Door



Photo 8.3: NH1: HMU Open Plan Area: Front Door



Conversing around a dining table gave a sense of privacy and focused attention for the relatives. Being able to sit at one of the round tables and have a cup of tea helped facilitate communication and intimacy with their family member. They appreciated the informality and ease of contact in the open plan space. Homeliness was created by the domestic style furniture and the homelike soft furnishings and curtains.

The relatives felt that they had the freedom of space to move around the room with their family member, perhaps going to a table for a cup of tea and back to the sofa to continue the chat. This was also empowering for them. In the TMU the dining tables were in a separate room and were consequently rarely, if ever, used by the relatives.

8.3.6 Open Plan: Staff Engagement

In the TMU's, there was a sudden influx of staff when they served the tea in the communal sitting room area, after which they left the room to continue their work elsewhere in the unit. In contrast, in the HMU's, the homemakers spent all of their time in the room and other staff were not required to assist when it was time to serve the tea. The homemaker's consistent

presence (Total Staff Markers) was confirmed by the increase in daily snapshot markers and in the corresponding reduction in standard deviation (Table 5.2; $p \leq .001$).

In the TMU's, the staff did not have time to shepherd residents to the dining rooms for the tea breaks, so they served the refreshments in the communal sitting rooms. Staff handed down the tea and biscuits to residents sitting in their chairs or on the sofas and then promptly moved onto the next person. The food and drink were accepted passively by the residents, who did not engage or interact with the staff other than to receive. Staff remained standing when they helped a resident eat or drink. The end result was a room of passive, non-interactive and dependent residents. In contrast, in the HMU's, the homemakers provided tea and biscuits at the tables. Residents brought themselves over to the round tables with the purposeful intent of participating in their tea break. Residents were face to face with whoever else was at the table. Staff sat down next to the resident to give them assistance to eat. As a consequence, there was less passivity and more interaction with others.

8.3.7 Open Plan: Work Issues

The staff were positive about the HMU open plan living room, dining room and kitchen. It meant that one staff member could view the whole room at once, which gave the staff a sense of confidence that they would see any resident in trouble and could take action.

8.3.8 Open Plan: Relative Opinions and Homelike Attributes

There was more resident (Table 5.1, $p \leq .001$), staff (Table 5.2, $p \leq .001$), and relative (Table 5.3) Social Engagement in the HMU. The environment fostered interaction not only with the family member they came to visit, but many relatives established friendships with residents and other relatives. This more friendly and social environment was described as being more homelike.

Relatives thought the open space was brighter, more airy and more spacious. They used words, such as welcoming, comfortable, home-like and friendly, to describe this environment. However, people's homes do not have open-plan sitting rooms on such a large scale and they don't accommodate 18 people. Describing this space as a home sounds counter-intuitive. What relatives meant was that the HMU environment did not look like an institution or hospital, with dim rooms and long hallways. In addition, there were soft furnishings grouped within the space, a domestic style kitchen, and a front door entrance which opened directly into the main communal room, giving the room a more casual feel.

But, above all, this space felt homelike because it was a person centred hub, with things happening. Physical design facilitates, but does not dictate, how a space is used (Innes, Kelly, & Dincarslan, 2011). For the relatives, the real success or failure of the environment depended on how well it had become an 'occupational space' (Hasselkus, 1998) where their family member was engaged and occupied on a day to day basis.

8.3.9 Open Plan: Engagement

The relatives liked the open plan area, as it eased locating their family member and gave easier access to the staff. They spoke positively about how their family member was making better use of the social opportunities within the room, rather than wandering the halls or remaining in their bedroom. They described the sitting room as flexible and person friendly. They could find a table or grouping of chairs that offered semi-privacy whenever they wanted without needing to resort to going to a bedroom area.

Relatives in the HMU were still essentially visitors, some of whom visited regularly and some of whom visited infrequently. The study of Cutler and Kane (2009) found that relatives reported an increase in visiting in homelike environments, as they felt more comfortable there. This trend

also showed in this study. The relatives in this thesis study described their visiting frequency as being dependent upon distance of travel, ability to drive, life and work commitments, and, family relationship particulars. These issues also influenced how long relatives stayed visiting. That being said, there was a non-significant near doubling of Total Relative Markers (Table 5.3, $p \leq .07$), supporting the findings of Cutler and Kane (2009).

The relative Interactive Occupation and Social Engagement categories, again, showed substantial increases, but these were not significant because of the large daily variation (standard deviation). However, significance was achieved when these two categories were aggregated into the Engaged & Interactive Grouping category (Table 5.3, $p \leq .05$). The open plan room encouraged the relatives to be more engaged and interactive.

8.4 FUNCTIONING KITCHEN IN DOMINANT CENTRAL POSITION IN OPEN PLAN AREA

8.4.1 Introduction

For both TMU's, centralized kitchens serviced the greater nursing home whole complex. Residents were gathered together by the staff and shepherded into the dining rooms to wait for their meal. After the meal completion, the residents were shepherded back into the sitting room area. In NH1, the residents were taken to a large dining room serving all the units of the whole nursing home complex some distance from the unit. As this centralized dining room could contain 80 residents from all parts of the greater nursing home, the noisy and busy space was overly stimulating, overwhelming and irritating to many residents. As a consequence, staff were required to calm, monitor and assist the residents.

In the HMU environments, the main meal components were still prepared by centralized kitchens and brought to the HMU kitchens, the food was then served out at the unit kitchen. In the HMU's, residents got out of bed at a time of their own choice in accordance with their previous lifestyles. The unit kitchen and the homemaker facilitated the residents and staff, as breakfast could be served to the individual when they arrived, rather than at the dictates of a centralized kitchen. Similarly, residents could return late from an outing or the hairdresser and a meal could be kept warm in the bain-marie dispensing units. The time guillotine pressure to have all the residents in the dining room at one time was removed giving flexibility and making life easier and less stressful.

In the HMU's, the provision of food and beverage orchestrated the physical movement on the unit. The day was defined in the open area by the self-initiated movement of residents to and from the tables and by the busy occupation of the homemaker around the kitchen. Staff did not shepherd the residents to and from the dining room, as they had in the TMU's. Most residents could make it to the tables on their own in the HMU's and could sit at a table of other residents of their choice.

Relatives liked the visual impact of the kitchens in the open plan rooms. In addition, they were positive about the casualness and flexibility. If their family member was still eating, they could easily sit in the sofas in the room until they finished or sit at the table with them. They liked the friendliness and intimacy of the round tables, which allowed them to easily join the table. Several relatives mentioned bringing in food treats as a celebration for the all residents, creating interaction and a sense of family cohesion and inclusion. The HMU kitchen was an essential contributor to the household ambiance. In many ways, it symbolized home and family.

8.4.2 Properties of Round Tables

Both HMU kitchen and dining areas were a success. Staff and relatives spoke about the space and the ease with which they could move around the room. They identified that the roundness of the tables encouraged the residents, staff and relatives to join the tables, whether this was for conversation, to assist someone to eat or to participate in a table top activity. The dining areas, whilst still within visual range, gave an option of sitting away from the sofas and chairs, engendering a sense of privacy and intimacy. Sitting across a table and over a cup of tea was observed to be natural and familiar, facilitating spontaneous engagement.

People naturally group in a circle and a round table facilitates this. During the observations, people sat in informal circles around a table, two or three rows deep on special occasions, such as birthday celebrations, the taped recording of a church service, and a group sing-along around an automatic piano programmed to play familiar songs.

Photo 8.4: NH1: HMU Round Tables



Photo 8.5: NH2: TMU Four Sided Tables



These observations differ from generally accepted practice. For example, the Alzheimer's Australia position paper (2004) recommends the use of square tables. The rationale for square tables is that it helps define a person's space, which will encourage some people with dementia to eat independently. No backing data is given and the advice appears to be conjectural and theory

driven, rather than being observed. However, demarcating space is not in the best interest of people with dementia who already spend much of their waking day isolated from, and without interaction with, others. Round tables are more sociable. The round tables improved the opportunities for joining, interacting, and becoming engaged in activities. The recommendation for angular tables misses the important effects that round tables have on interaction and engagement.

No staff or relatives spoke about the need for four-sided tables to demarcate territory for the residents. And the staff were enthusiastic about how much easier it was to seat people with poor mobility at a round table. Similarly, they found it much easier to sit down next to a resident when helping them eat or drink. HMU staff did not stand over the residents as they had done in the TMU's. Instead they joined the table and sat next to them.

In the study of Green Houses by Cutler and Kane (2009), staff found that one very long dining table was impractical because of the resulting noise, congestion and chaotic meal-times. The NH1 staff experience of one long table was similar. The round tables made it easier for residents, staff and relatives to join others at the table, whether for a meal or for craft activity. The round tables encouraged greater occupation and social engagement than having everyone seated around one table.

HMU, homemaker: We did try the big country kitchen tables. I never felt they worked. These work. The smaller tables, because you are within a little group – 4 or 5 people. The big tables weren't personal enough. You had to think, I can't put so and so here because we will have to move them to get so and so in because they will need the space to get in there.... I feel the small round table is more personal and encouraging for people who don't eat and you can talk to people.

8.4.3 Kitchen: Occupational Opportunities for Residents

Food preparation is a domestic task which is flexible and inclusive and stimulates great participation, engagement and interaction from nursing home residents with dementia (Buettner & Fitzsimmons, 2003). More residents are willing to participate in food activities such as baking than are willing to participate in various other household chores such as meal set up (Marsden, Meehan, & Calkins, 2001).

During the observations, the residents and relatives were restricted from using the kitchen facilities in both HMU's, although there was some confusion about the precise nature of this restriction and to whom it applied. Health and Safety and Infection Control protocols were cited as the reason for not allowing relatives and residents into the kitchen.

8.4.4 Kitchen: Identity through Occupational Tasks

Eating and drinking are probably the most potent tools for involvement in a nursing home. In one study (Altus, Engelman, & Mathews, 2002a) social engagement and participation levels were doubled when residents were prompted to help themselves to the food at the dinner table, family style, rather than having the food already plated. This is reflected in the experience of one staff member who encouraged residents to help themselves as an experiment pre renovation in the example below.

HMU, nurse: I didn't set it, I just put the stuff on the table. Now I said 'I want one of you to set that table up' and they did it. And it was amazing. But the biggest thing that struck me was, I put the jug on the table and all of them poured from it. If I do that normally, they would sit there and expect me to pour. That day they asked 'do you want some?' 'do you want some?'. They filled their cups using their own initiation.... I actually sat with them. I wasn't standing like the nurse. I was sitting down beside them. And one of the ladies poured me the tea. I could have been her daughter. And the conversation was brilliant.

Residents undertook other domestic activities which were observed in the household open plan environment, such as taking off table cloths, washing down tables and countertops, and folding napkins. However, staff were reluctant to prompt residents and instead waited for the residents to indicate their interest in participating in the domestic task. These findings are echoed by other researchers (Cutler & Kane, 2009; Nolan, Grant & Nolan, 1995). Staff spoke of not having the skills, training and ability for providing activities that would engage the residents. This is a particularly important finding, in that people with dementia have difficulty in self-initiation. This suggests the need for staff development and training.

HMU, nurse: Whereas we don't have the knack. We don't have the training.

HMU, care worker: We could do with someone to come in every day who was more qualified. Sometimes I try to do activities, but I just can't seem to keep them awake and get their attention. We had an activities coordinator, and she was second to none. She could keep them upbeat. The place was lively when she was here. Individually we can chat, but as a group it is hard to get them to listen to you.

HMU, care worker: You need somebody who is good at that kind of thing. I'd be good at one to one with them, but not the full crowd.... It's very hard to motivate someone. And we aren't trained to be activity coordinators. Either you are good at it or not.

It is possible to define simple engagement and interaction behaviours as being part of each care worker's daily caring role. Carefully conceived studies by Altus, Engelman, & Mathews (2002b) and Engelman, Mathews, & Altus (2002) have shown that, with simple training, staff can increase their engagement with residents fourfold. In order to do this, the behaviours were clearly identified, a self-report form was completed daily, and specific management praise was used as the incentive (section 2.4.3).

A way forward is to employ specialists, such as occupational therapists, who see encouraging activity provision as part of their role and can provide direct interventions, training, modelling and reinforcement of the skills.

It was up to the homemaker to make use of the domestic facilities to engage the residents. While the homemaker had a demanding role and was often very busy, there were times when the homemakers spent time in cleaning and routine tasks rather than engaging with the residents or encouraging their interaction with the household tasks. Providing training, skills, role definition and managerial reinforcement would be helpful in encouraging resident engagement behaviours.

8.4.5 Kitchen: Relatives and Biographical Disruption

The relatives expressed an unambiguous wish to be able to make a cup of tea for themselves and their family member. The identity of any relationship is defined in part by the things that the people do together. Most familiar routines are lost because of living with dementia in nursing homes. The following is a good example of this. A daughter spoke of her regular visit to her mother's home to watch Coronation Street over a cup of tea. This defined an aspect of herself, her mother, and her relationship with her mother. This was who they were, in relation to each other, because that was what they did together. This relationship was disrupted by the mother's admission to the TMU nursing home. The daughter no longer made a cup of tea for her mother and no longer watched Coronation Street. This was experienced as a loss of relationship identity, as well as the loss of closeness and the comfort of habit. This discontinuity of who they were for each other was a loss for both resident and relative. The daughter spoke appreciatively of the HMU where she was able to make a cup of tea and was able to sit and watch Coronation Street with her mother and how intimacy was regained through this familiarity.

Tea making came up for families as an emotive issue with many relatives, as it is in such simple things, like sharing a cup of tea, that closeness and companionship are expressed. There were other issues as well. Relatives, who may have come a long way, were forced to either ask or wait to be offered a refreshing drink. There was the discourtesy of visiting someone's home and not being offered this symbol of hospitality, which would have been automatic in the family member's own home. Relatives felt their knowledge and experience of safety precautions had been discounted by the nursing home deciding that they could not be trusted to put things out of reach.

There is an inevitable breakdown in the relationship between relative and their family member as the cognitive impairment continues to take away memory, language, and relationship skills. This has been termed a 'biographical disruption' (Hasselkus & Murray, 2007) and it affects both parties. As part of this loss of relationship, the relatives often look for small signs of their family member's continuing ability to participate in ordinary occupations. This is experienced as having one's family member back again for this brief period of time. They interpret an ability to participate in an occupation as an indicator of (a) their family member's state of relative well-being and (b) as a way of maintaining relationship (Hasselkus & Murray, 2007). This is exemplified by one son's story (below) of how ordinary events can be extraordinarily meaningful. It also demonstrates how participation in a natural and simple shared occupation was a route to intimacy for this family.

A son and his brothers spoke of how visiting in the TMU was usually a scramble to find seats around their father. They spoke of their discomfort when trying to balance their own cup of tea on the edge of the sofa or on the floor, while at the same time reaching over to help their father drink from his own cup. However, when they were able to sit around the table in the HMU, the

dynamics changed. Sitting at a table was natural and empowering for the sons and for their father. Although the father was unable to follow the conversation, he was able to participate in the conversation non-verbally. He turned to each son as they spoke, which expressed his interest and his desire to participate as much as he could in the conversation. This affected his sons deeply. One son described feeling as if he had a connection back again with his father. He used concepts such as 'magical' and 'Christmas' to express the effect that this had on him.

HMU, son: Because I had a magical night that night. It was one of the best times because I felt that he was participating and that we were all participating. The problem is the quality of the conversation. I say the same thing all the time. It's not holding us together. I do believe that the social coming together to eat together had great potential. He participated. He may not have contributed to the conversation, but I know that he went from there to there as each one of us spoke. And 'do you remember that dad?' I found that to be particularly stimulating for me, as much as for my father. I had a real memorable visit. They would be few and far between. Christmas doesn't happen every day. That was a good Christmas for me.

8.4.6 Health and Safety and Infection Control Concerns

In the HMU interviews, many staff spoke of Health and Safety and Infection Control restrictions for the kitchens. This thesis study found that the staff prioritized keeping the residents and environment clean, safe and tidy. This is very similar to the findings of Moore (2004) regarding the hidden program of a place, as discussed in Chapter 2. Reversing this process demands the time and training of staff, as well as a managerial commitment to negotiate with regulatory departments.

Generally, relatives did not go into either unit kitchen. However, despite this unspoken rule, a small number of relatives felt 'at home' enough to make cups of tea in the kitchen. These individuals were relatives who visited frequently, even daily, and who had developed a casual and participatory relationship with the staff. However, in general, relatives understood that they were not allowed into the kitchen areas.

There appeared to be an institutional component to this unspoken rule. By claiming the kitchen as 'their' area, the staff were making an unconscious statement about being in charge and of being the dispensers of food and drink.

8.5 HOMEMAKER WITHIN AN OPEN PLAN AREA

8.5.1 Introduction and Benefits of the Role

The homemaker role was created for both HMU's in order to service the kitchen, to improve resident monitoring, and to supervise and facilitate resident choice and person centred care. The open plan area became more attractive to the residents as a result of her presence and the busyness of her role (Van't Leven & Jonsson, 2002). Residents spent significantly ($p \leq .001$, Table 5.1) more time in the open plan area.

HMU, homemaker: The whole idea of the kitchen and the sitting room area, has benefited the residents. For one, they are not on their own. There is always somebody in the room with them. For company and for supervision, in case of falls. People get anxious but they know that you are somebody that can help them.

HMU, nurse: The home maker makes it safer than ever before. This one staff is really there for supervision and the feeding. They are more interactive with the residents. We didn't know the residents' likes and dislikes that deeply, which we do now.

Creating the homemaker role transformed the staff presence in the room and social interaction (Table 5.2, $p \leq .001$). By appointing the homemaker as a distinct role, the levels of Social Engagement and Interactive Occupation were significantly increased for the residents (Table 5.1, $p \leq .001$). This confirms the findings of Nolan, Grant and Nolan (1995), who recommend redefining staff roles as a means of increasing social interaction.

HMU, homemaker: The fact that you couldn't see what people ate used to frustrate me. Now you can see that. Some of the people need prompting and you can see that and that the tea is getting cold. And you can go over and prompt them to get them to start to eat again. If they were in the bedroom, you wouldn't know that. And being in the [open plan]

rooms, there would be more time to encourage them. Or if they want more tea they will stand up with a cup.

By the time of the post renovation interviews, the homemaker role had become absolutely integral to the functioning of the HMU's. By creating a role which was defined by the kitchen and domestic tasks, the post was anchored into the kitchen and open plan space. Meals are an essential component of daily life in a residential unit and are one of the few occupations around which the day is organised. They are the 'heart of life' (Bundgaard, 2005) within the unit. The provision of food and drink is a natural route for social engagement. Residents welcomed and cooperated with the homemaker in the HMU, which engendered spontaneous conversation. All but the most impaired residents were easily engaged through the medium of food and drink.

The kitchen succeeded because a homemaker was allocated to the area and because it was at the heart of the open plan area. Without a homemaker the kitchen would stand empty for most of the day, without any real impact on the day to day functioning of the unit. The operational policy of allowing residents choice of morning get up times would not operate effectively without the homemaker's continuous presence in the kitchen. Staff valued being able to leave residents in the open plan area under the monitoring and supervision of the homemaker, allowing them to get on with their tasks, without having to be concerned about resident safety or well-being.

HMU, care worker: It is best to have a home maker and not another care worker, because the home maker means that the carers can get on with their job and they can get everybody up and dressed. The home maker can be in the kitchen giving out the breakfasts. Everyone has their own job. If you had three carers one person would still have to go and give the breakfasts. I wouldn't like to see it going back to the old way. Its better supervision of the residents. Much much better supervision. Someone is there constantly. The home maker knows exactly what they have to eat, and if they are not eating they know that. They can give supplement drinks. It's much better.

8.5.2 Homemaker and Food Provision

The homemaker was expected to assist with the provision of food, whether brought down from the main kitchens and served from the unit kitchen, or prepared within the unit itself. The homemaker was able to monitor the food and fluid intake of residents, and to provide individual assistance for those who were not able to eat or drink on their own. Other household staff recognized the importance of this function, as they were aware of the risk of weight loss and dehydration in the resident population, but were not able to devote the time and attention themselves, due to task commitments elsewhere in the unit.

Photo 8.6: NH2: HMU Kitchen and Homemaker



Because the homemaker was always present in the kitchen area, staff did not have to gather all residents together at one time for meals. Residents could get up at different times or come late from the hairdresser and food could still be served.

8.5.3 The Homemaker Role and Activity Provision

The homemakers were previously care workers and domestics. Staff brought these professional skills and priorities with them. These emphasized personal care or cleaning tasks. They also brought with them their experience of busy rotas and routines where personal interaction was defined by task completion and time guillotines.

The homemaker was very busy when food and beverages were being provided, but had more flexibility at other times. It was expected by management that homemakers would provide stimulating activities when they were not busy. The homemakers did not identify with this direction of work and did not have the background training and modelling sufficient to integrate these activities as part of their role. They were more comfortable with their familiar care and domestic tasks in which they were trained.

HMU, homemaker: I don't even know what management expects from a home maker. Some people think it should be all activities. Some people think it should be a mixture of serving food, doing a load of different things.

Providing household and kitchen tasks is more effective in eliciting the participation of the residents and the homemaker than trying to involve residents in formal group or individual activities (Saperstein, Calkins, Van Haitsma, & Curyto, 2004). Their observations concluded that 'kitchens that feel and function like a normal everyday kitchen will not exist without a philosophy that reinforces staff involvement in normative everyday tasks and creates staff time for implementation' (Saperstein, Calkins, Van Haitsma, & Curyto, 2004, p.326). They go on to say that having unit kitchens 'without connection to residents' experiences of what a kitchen is and what it means, is a waste of money' (p. 330). Instead of formal cooking groups which require dedicated staff time, Saperstein, Calkins, Van Haitsma, & Curyto (2004) recommend using natural unstructured kitchen and domestic tasks, such as washing and drying dishes and wiping down, to increase participation.

In the HMU's, the residents were observed undertaking tasks, such as wiping down tables. However, residents were often left alone and did not have a sense of participation. There was a tendency for the homemaker to be busy with the routine tasks of the job, rather than to spend the extra time it would take to work jointly with the resident and to provide the encouragement

required to keep the resident engaged. Remembered activities give a sense of achievement, participation and connection with previous abilities. Providing these activities gives an opportunity to engage with the residents.

Photo 8.7: NH1: HMU Kitchen Participation



Some homemakers were not aware of how their actions inhibited the social functioning of the room. In one of the units, tables were routinely set up for the next meal as soon as the dishes had been washed, as would be done in a bed and breakfast hotel. This effectively stopped the tables from being used casually and spontaneously, as the crockery would have to be either taken away or pushed aside. This example demonstrates how a particular member of staff had not identified a key purpose of the homemaker role to be the facilitation of interactive occupation and social engagement and, therefore, prioritized the domestic duties.

Other uncertainties were expressed about the role of homemaker. At the time of the HMU interviews, the staff spoke of ongoing debates as to how the role should develop and how much the homemaker should be involved in providing day time activities for residents. The homemakers spoke about not being trained to work as an activity therapist, as well as not having the special interest or ability to undertake the role.

8.5.4 Issues of Welcome and Belonging

Having a staff member always present in the main room during the day was greatly appreciated by the relatives. Normally, when a person visits in someone's home they get a welcome and greeting. A cup of tea is offered. The person is made to feel at home. This part of the homemaker role was missing. The homemaker proceeded with the work in hand, rather than greeting the relatives as they came to visit.

HMU, nurse: I imagine from my own point of view if I was going to see a parent, it would be nice to walk in and see somebody and to know that there is somebody there. Some people don't want a big conflag, but I do feel they want to see somebody.

The homemaker was the first staff member encountered by relatives when visiting. Having an available staff member in the open plan areas was especially helpful if the relatives were unfamiliar with the unit. For regular visitors, the homemaker was a consistent and familiar member of staff.

Residents related well to the mother figure who wore an apron and produced the food. The kitchen was located at the centre, at the heart, of the household. This had potential to provide a sense of belonging and being at home for the residents.

Residents were unable to offer the cup of tea as part of the important greeting process, as they would have done in their own homes. Additionally, most relatives did not access the kitchen to make their own cup of tea as they would have done in their family member's home. Drinking a beverage together is a potent symbol. Engagement is promoted, which is why it forms part of the hospitality in private homes around the world. Not having this ritual in the family member's new home affects the relative's sense of 'belonging' and affects the resident's sense of hospitality and sense of home. The homemakers did not appear to be aware of this important symbol and did not facilitate this ritual.

In this thesis study, things were frequently done 'to' and 'for' residents and relatives in a way which was similar to staff providing for a hotel guest. Robertson and Fitzgerald (2010) describe how running a nursing home like a hotel creates a disengagement and detachment between the staff and residents and relatives. For many homemakers, there was an emphasis on hotel priorities: how well things looked, how well tasks were done and if the area was prepared and clean. This contrasts with the stated goal of the Executive Directors, which was to provide a family and homelike atmosphere.

8.6 OPERATIONAL CHANGES: UNFORCED ROUTINES, FLEXIBILITY, EMPOWERMENT

8.6.1 Introduction

As a consequence of the changes in the operational policies, the HMU's became more flexible and person centred, with less emphasis on institutionalized routines and task accomplishment. The work carried out was now more appropriate to the person and the situation. Staff felt less pressured to cajole a resident in order to have work completed by a specific time. As a consequence, staff felt the sense of pressure that they had been working under in the TMU's was dramatically reduced and that they were able to spend more quality time with the residents.

HMU, care worker: Institutionalisation is like tunnel vision, you don't see any other way of doing things. I suppose it's the environment that makes you institutionalised. We used to think that we weren't institutionalised, but now you look back and you see it.

HMU, nurse: It was just routine, factory like. Eight o'clock; this has to be done. Twelve o'clock; that has to be done. Now it is more flexible.

The household operational policies, which included the appointment of a dedicated homemaker in a kitchen in the open plan area, had a positive effect on the amount of staff time which was spent in the communal spaces (ref: Table 5.2, $p \leq .001$). Because of the work

reorganization, staff stated their time pressures were reduced and they were able to engage more with the residents. The proportion of time staff spent in Engaged and Interactive behaviours increased, while staff Non-Engaged behaviours decreased (Chart 5.15). The relatives observed these positive changes. The operational changes had very important consequences and the subject matter will be explored in some depth below.

HMU, nurse: The biggest thing about the dining room is that it's much easier going, there is time spent over meals, whereas beforehand the meals came down, it was more like another task you were doing, putting things out, 'wheel them in, feed them, wheel them out' to be very very blunt about it. Whereas now they could be sitting for a wee while before. It's much more a social occasion. Much much better. And not so much tied to their meals at specific times.

8.6.2 Changes which Empower Care Workers

In the HMU's, the care workers no longer worked in other units across the whole nursing home complex, but instead worked exclusively on the secure dementia units. As a consequence, they became more knowledgeable about the residents.

A new household coordinator post was created to supervise the care on the unit, link with families and roster the care workers. Previously these tasks had been the responsibility of the nurses. This allowed the HMU nursing role to be focused on clinical, rather than care, issues: medications, interfacing with medical staff, and disease management. With this sharpened role and the elimination of the day-to-day administrative duties, each nurse role could be shared across two units within the greater nursing home complex. This provided cost savings which partially offset the increase in other staffing costs.

8.6.3 Unforced Routines and Removal of Time Guillotines

For staff there was no theme more important than the removal of the institutional time guillotine, which allowed responsive and unforced routines. With the introduction of the unit

kitchen and homemaker, staff stopped racing the clock compelling residents to do things which they did not wish to do. Overcoming resident's resistances had been very time consuming in the TMU's, which compounded staff work time pressure and stress.

For the staff, the pressure was off in the HMU's. They could react to what was actually happening, rather than being strait-jacketed into specific time frames. They could act flexibly, spontaneously and responsibly, with more awareness of the person and the situation.

HMU, care worker: The pressure is off and yet the work is being done.

HMU, nurse: The whole unit feels more relaxed. It feels better. Not trying to beat the clock all the time. More time to sit with the residents. You are aware of more; you are seeing more than you previously would have.

HMU, homemaker: Maybe we are more relaxed as well. Maybe we feel that we are not under as much pressure to get things done in time. In that you are giving the resident more time because maybe you don't feel as pressured to have these tasks done by a certain time.

8.6.4 Time Savings in an Improved Work Environment

In many ways the new operational procedures made the work more efficient. The nurses' role was redefined around their professional nursing skills, leaving the personal care duties to the care workers. Staff providing personal care could concentrate on their work without having to break away to look after the residents in the communal spaces. There was not the same time and effort required to get people out of bed. Staff no longer had to walk to the main kitchens to get a cup of tea for a late arrival visitor or a resident returning from an outing.

HMU, care worker: I think the changes are much better. It's better for residents as they are all in one area and easier for us to supervise. They can get up when they want and no set time for their meals. In the mornings we would come in and it was just rush rush rush. Get them up for their breakfast. It would just take too long. Now we have the kitchen it's just easier. You are not pulling them out of the bed when they don't want to get out of the bed.

HMU, care worker: You are observing them and if they need anything you are there. And at meals, before now we had to leave the room to get something, to get a cup of tea. Now, you can make a cup of tea while observing them.

HMU staff no longer had to interrupt their personal care work in order to shepherd residents to the dining rooms. One of the TMU's had a central dining room for the whole nursing home complex, with the attendant noise, confusion and over-stimulation of 80 residents. The effect was that many residents required assistance with eating and prompting to remain in their chair. In contrast, more residents were able to eat without staff assistance in the calmer, less stimulating environment. In the HMU environments most residents were able to take themselves to the dining tables with little or no staff assistance and were cued by the dining room and kitchen environment to attend to the task of eating.

HMU, care worker: Having a schedule makes it very hectic. Obviously you have to have some sort of time table. But it is not just as hectic. There was an awful lot of time wasted before. You had time wasted getting people up and into the sitting room. And from the sitting room to the dining room. The dining room was way up corridors. It was an awful lot of time waste. Whereas now you go straight from the sitting room into the [dining area]. You have 20 minutes that you would have been using to bring in residents to and from the dining room. In the morning time, the care just continues. You don't have to stop to give people their breakfast. So there is no waste of time there. In the evening time you save 20 minutes because you don't have to take residents to the dining room again.

New work routines meant that there was a more relaxed and person centred atmosphere. The staff described the residents as being happier and therefore more able to remain engaged with the eating task.

HMU, homemaker: I definitely think it is a good thing, a big improvement of how things were. I think the residents are happier. They interact more with you. It's less rushed. Mealtimes are less rushed. Less repetitive, because of the march to the dining room and took back. And a certain time to have the meal. It was more task driven. It's much more relaxed now.

It was not possible to get all residents out of bed, showered, dressed and sitting at the dining tables in time for the breakfast provision in the TMU's. Instead a most residents had their breakfast in their bedrooms, which staff considered to be an inefficient use of time. As the staff could not devote the time to stay in each person's bedroom until they finished, there was a risk of spills and the possibility of residents flushing their breakfasts down the toilet or tipping the food under the beds. All of these behaviours would take more time to sort out. In the HMU's, all residents could be supervised in the open plan room. They could be assisted at the dining tables, which was the task appropriate location. The homemaker facilitated each resident at whatever time he or she arrived. This allowed the staff undertaking personal care the time to interact with each resident and complete the personal care tasks without rushing and resultant stress.

8.6.5 Organizational Implications

The environmental and operational changes which created the HMU also facilitated the person centred approach. The provision of care was more flexible, more person centred and more respectful and appropriate. Residents were facilitated to exercise their choice about get up times, rather than getting up at times set to facilitate the priorities of the institution and staff. Similarly, residents chose to go to bed at different times. They had greater choice in their meals and time of eating. Their wishes about participating in craft or activity groups were respected. Staff could interact with them as a person, rather than as a job waiting to be done. The staff recognized that this resulted in greater personhood for the residents.

Throughout this thesis, the involvement in interactive occupation and social engagement has been emphasized. If the goal of person centred care is to maintain personhood, the environment must attend to their need for identity, occupation and inclusion (Penrod, et al., 2007). Interaction must be person specific. Residents are more likely to be engaged, react more positively and have

fewer negative symptoms when activities are closely matched to their background (Kolanowski, Litaker, & Buettner, 2005; Kolanowski, Buettner, Litaker, & Yu, 2006).

There is a requirement for nursing homes to adhere to Health and Safety and Infection Control instructions in order to keep residents safe and in good health. However, rules and regulations can be a detriment to the personhood and well-being of residents (Parker et al., 2004). There must be a compromise between allowing freedom and flexibility on the one hand and institutional restrictions on the other. Operational policies create cultural practice. It is the role of the Executive Directors to determine the balance and outcome of these issues.

8.7 PERSON CENTRED CARE: CHOICE, OCCUPATION, ENGAGEMENT

8.7.1 Resident Preferences and Choice

Within traditional institutional care, the resident is directed what to do and when according to staff schedules and operational policies. With person centred care, the person is encouraged and facilitated to make choices.

Person centred care is especially challenging in units for people with dementia. Residents are often unable to express their choices. In an institutional environment, getting the work done (task completion) is the top priority. There is a tendency to treat all residents as if they were the same (e.g. up at the same time; everyone to the same activity group despite their skill level). In institutional environments, staff do not have a need to learn about resident preferences or individuality (Silva-Smith & Kovach, 2006).

In contrast, in a person centred environment, staff must engage more with residents in order to ascertain their choices and preferences. If residents are unable to give their preference, the

staff are required to make choices for them. This means knowing how they would have expressed their preferences before the dementia. In order to be able to do this, staff must spend time and ask questions of the resident's relatives. To give a simple example, a daughter spoke of how she had recently discovered that staff had been putting sugar in her (non-verbal) mother's porridge, not knowing of the mother's lifetime habit of using salt. The effect of this was to compound her mother's reluctance to eat.

One way of making sure person centred principles are established is by creating a resident profile of their likes and dislikes, their interests and preferences, at admission. However, in both nursing homes, the initial intake notes focussed on medical, rather than personal and social information. Initial intake is a critical moment in time, when relatives experience a great many intense emotions, including grieving for loss and guilt. This moment sets the tone of future resident, relative and staff relationships. Knowing that the staff were greatly interested in the personhood of their family member and that they would be using this information to engage and interact with the resident as a person, would be reassuring to relatives at this time. Knowing what calms or upsets the resident, as well as a host of details that make the resident unique, would make the transition to care and integration into the unit as smooth as possible for the residents. This essential information about the resident's interests is an aid to engagement in interactive occupations and social engagements.

HMU, nurse: Yeah, I think so. Previous to this, the nurses would do the admissions sheet, and, if you do sit down and think about it, it is very sketchy. It gives you the information you need for legal info, but it doesn't give you the information on the residents, on who they are. It would work well for relatives as well. A lot of people have cared for these people at home and suddenly they are handing them over. It's huge; I can understand it so well. And it takes so long for people to adjust. And it takes a while for residents to settle in and for staff to get used to them. But for family to let go... if there was a bit more communication, even now, it's not too late, even for the residents we have. A bit more communication, at a specific time. A lot of the time the families are forgotten at the admission stage. We are good at what we do and we forget that the families have been

doing it for years. They know more than any of us will ever know about this person. We need to be working together.

Both nursing homes made some use of life history books. These are books of words and pictures of the resident's life, created by the family and left in the nursing home. However, in practice, many families had difficulty creating and completing the books. Some relatives spoke of having completed, or partially completed the life history book and then found that staff did not use them. There was a sense of a task being completed for completion's sake, rather than being a joint undertaking between staff and relatives with a practical purpose. This parallels the admissions process. In theory, care is a joint enterprise between staff and relatives. In practice care was handed over to the staff on admission and family were marginalized to the periphery of this care. The relationships built over decades, and the ways that they had of coping with their family member's dementia, appeared to be suddenly of minor importance to the staff. This made relatives feel at a loss and was disempowering. If life history books are used correctly, they create a mutual appreciation, understanding and cooperation between staff and relatives. The process validates the relatives, their relationship and what they have done. The process also supports the care workers, giving them information upon which they can establish a relationship, as well as previously successful approaches to use to deal with problem behaviours. For the residents themselves, a life story book is validating, recognizing their interests and preferences, their life history and their essential personhood (Kitwood, 1997).

8.7.2 Resident Dignity

Person centred care moves the emphasis of care away from the medical and nursing model to a social model of care, changing the emphasis from the medical condition of the person to their quality of life experience (Davis, Byers, Nay, & Koch, 2009).

The following example demonstrates in a practical way the difference between the TMU and the HMU philosophy of care. When residents were transferred using a hoist in the TMU's, the transfer was often done without warning and too quickly for the physical ability of the resident. To use Kitwood's terminology, the resident was 'outpaced' (Kitwood, 1997). Staff did not engage with the person, and the person was treated as just another task to be done. If the staff had paid attention to the person they were transferring, they would have noticed the surprise, anxiety and distress that registered on their faces. Staff would have taken due regard to the resident's exclamation of surprise and protest and would have been aware of their body rigidity due to shock and fear of the sudden movement over which they had little control.

In sharp contrast, no such incidents were observed when the HMU's were being studied. Staff made the resident aware of what was going to happen in the transfer process and went slowly so as not to outpace the residents. Hoists and transfer equipment were rarely used. Residents were encouraged to do more for themselves. The staff were more aware of the personhood and essential dignity of each person and worked to make the transfer a cooperative process.

There is dignity in being able to function to the best of one's ability in an environment. The open plan design of the HMU's enabled the dignity of the residents. Their environment stimulated interest and participation, whereas previously they were outsiders in their own home in the TMU's. Residents were enabled to observe when people were gathering for a meal or a cup of tea. If they were mobile, they could choose when they wanted to join others and which seat to take. They could choose to remain at the tables over a cup of tea, or to return to the sofas when they wished. If there was a party or celebration happening at the tables, or a party sing-along, they could choose, if they wanted, to wander over to participate and they could leave at their own

volition. The open plan room and the grouping of the chairs, sofas and tables encouraged spontaneous conversation and informal encounters and social connection. The open plan area encouraged participation, with flexibility and choice.

8.7.3 Culture Change and Staff

In the HMU's, staff training, positive changes in unforced routines and operational procedures and the introduction of the homemaker post, were a dynamic package which changed the culture of staff work practices. Staff reported that they were happier and this was noticed by the relatives. Staff were proud of their HMU unit and spoke of being more strongly identified with the HMU than with the TMU.

8.7.4 Culture Change and Relatives

It is hugely satisfying to relatives when they see family members with dementia successfully engaged in everyday activities. Involvement in occupations and social engagement is recognized as a vital component of maintaining the identity of the family member and their relationship to their relatives. Hasselkus & Murray (2007) found that relatives define the state of well-being of their family member according to the occupations he or she is able to do on a particular day. This was also true of the relatives interviewed in this thesis study. Relatives defined their family member in terms of what they could, or could no longer, do. If their family member, or even another resident, was seen to be wiping down the tables or conversing with another about the weather, this was meaningful for the relatives. The relatives had noticed and were pleased with the increases in interactive occupation and social engagement of their family member. The person centred culture within the HMU was praised by the relatives.

8.7.5 Staff and Relative Engagement

Staff generally thought it was best not to interact with relatives unless the relatives initiated contact or had some specific request. A few staff expressed their opinion that relatives were sometimes critical of staff. Conversely, the relatives generally felt marginalized. A few felt disrespected in that they had been promised access to the kitchens, which had not materialized, which they took to be a lack of trust in their ability to make a cup of tea with appropriate safety awareness. In the interviews staff and relatives talked about the separateness and lack of engagement between the staff and relatives. The staff noticed the isolation of the relatives. They did not see remedying this situation to be within their remit.

The relatives were disappointed that the operations of the unit prevented them from accessing the kitchens, and expressed a wish for inclusion, flexibility and informality. They did not want to be served and wanted a sense of equal cooperation with the staff, without being made to be dependant. One of the HMU's was attempting to address the issue by providing tea and coffee in canisters. This was only a partial resolution and does not bestow full equality and joint cooperation. However, there was no operational policy which ensured welcoming behaviours for the relatives. There were no operational policies which directed staff in how to remedy the exclusion that relatives felt in the nursing homes.

HMU, care worker: We talked about relatives getting involved. We tell them what is on and when it's happening. Even if they come in and there is something on, you don't like to push too much. A lot of them come in and want to see their family and that is it. I don't think they want... maybe I'm wrong. I don't think they want us interfering.

HMU, care worker: Most of the relatives come in and it seems that they want to talk to the residents privately. They sit on one side of the room talking. And they don't want us interfering. On the other hand we had parties and we had plenty of relatives come in then, when they knew.

8.8 CHAPTER SUMMARY

This chapter has brought together and discussed the key issues which originated from both the qualitative and the quantitative data obtained for this thesis and explored how each of the components contributed to the whole multi-component intervention. Creating a better living, working and visiting environment is multi-faceted and includes physical, social and organizational components (Calkins, 2002; Weisman, Cohen, & Day, 1991). No one feature is able to magically transform a nursing home unit into an 'alive occupational space' (Hasselkus, 1998); all components are necessary.

The next chapter (Chapter 9) applies these issues and makes recommendations for future developments in person centred residential care for people with dementia and for the future use of the ATOSE. The final chapter (Chapter 10) will summarize, conclude and give the limitations of this research.

CHAPTER 9: APPLICATION

9.1 INTRODUCTION

The purpose of this Application Chapter is to draw the main issues together which have been raised as a result of the findings of the thesis and to make recommendations which can apply to other nursing homes. These recommendations are integrated with the best practice and evidence contained in Chapter 3. This evidence is used to guide and build the a priori typology which is the framework for this Application Chapter.

9.1.1 Management Aims and Objectives

The Executive Directors generated the renovations from knowledge they had obtained from first hand experiences visiting in America and Europe. Their initiatives for both nursing homes were driven by a desire to create a person centred environment within the dementia units. This intention was the driver for change, and, without their aim, there would be no change.

The Executive Directors allocated the required funding and had to convince their staff and relatives to commit to their vision of a better future. They directed and coordinated the renovation process. Their evaluation of the HMU success is therefore key to any recommendations for other nursing home initiatives.

In the TMU interviews, the Executive Directors outlined the following person centred goals for the proposed HMU's environments (ref: Chapter 6):

1. To create a happier experience and sense of belonging for the residents,
2. To create more interaction between residents and relatives,
3. To create a more relaxed experience, particularly at critical points of the day associated with the provision of food, and,

4. To decrease the task driven behaviours of staff within the unit.

Post renovation, the Executive Directors were of the opinion that the renovations and unit transformations had been successful, although they also recognized that more needed to be done. The Executive Directors thought that their person centred objectives had been accomplished as detailed below.

1. The Executive Directors were able to give examples of residents appearing happier and participating more fully in the main open plan areas, rather than spending their time in isolation in their bedrooms. The Executive Directors thought that the open plan area, with the kitchen and homemaker as the 'heart' of the household, was successful in creating a better, more lively and interactive environment for residents. These views were supported by statistically significant increases in participation, engagement and interaction data in the open plan areas as described in Chapter 5.
2. The Executive Directors were of the view that there were more visitors with more interaction in the open plan areas. This was supported by a significant increase in the relatives' Engaged and Interactive Category of Table 5.3 ($p \leq .04$). It was also supported in the HMU interviews. Relatives spoke about a more personable and friendly environment where they had better interactions with their family members, better communication with the staff and more encounters with other relatives within the open plan areas.
3. Meal time flexibility was a critical change in reducing the operation of the staff time guillotines and the time consuming institutional movement of residents from room to room, as discussed previously. The functioning unit kitchen, staffed by the homemaker,

was a key operational change which cascaded choice and other person centred changes throughout the units.

4. The Executive Directors decreased the institutional task driven behaviours of the staff. The pressure to achieve time guillotines was lessened or removed. Staff spoke of having more available time for residents, as they no longer escorted residents from sitting room to dining room. They did not interrupt their personal care work to supervise or provide tea in the communal living room. There was a stronger and more positive identification with their work and their workplace. The unforced routines became more spontaneous and flexible, as staff undertook to ask residents what they wanted and when. As a consequence, the Executive Directors thought the staff were happier and staff morale was more positive.

9.2 MAIN THEMES DISCUSSION

This thesis has shown that when assessments are made the environment must be assessed as a whole. As discussed in Chapters 1 and 2, simplistic single solution answers exemplified by architectural determinism, are unable to give reliable outcomes or are inconsistent in their findings. This thesis recommends the assessment of the whole environment using proximal and relevant observable outcome measures.

9.2.1 *The Impact of the Environment*

For Lawton (1989), the major purpose of the human environment is to provide maintenance, stimulation and support. People with dementia need the environment to support them by providing security, meaning, purpose, occupation and engagement in their lives.

In addition, people with dementia are more vulnerable to environmental deprivation due to the difficulties they have in self initiating interaction and engagement. They require more stimulation from the environment to satisfy these human needs for a good life with their sense of self and personhood reinforced. Lawton's ideas of the environment creating dependency (Docility Theory) and disability (Competence Press Model), outlined in Chapter 2, underpins this thesis.

This research has demonstrated that the HMU environment enabled greater independence, interaction and engagement. The HMU created a change in how residents used their time and how they lived their life in the communal living rooms. The change to a homelike HMU environment was strongly supported in the Executive Director, staff and relative interviews. The next sections take this information further and discuss how this experience can be applied to other nursing homes in the wider world.

9.3 APPLYING CASE STUDY LEARNING: THE NURSING HOME CONTEXT

The purpose of a longitudinal case study is to observe and make an inference about what has caused change to happen and to then apply it to similar situations in the wider world. In this thesis study, the HMU environment was explored and defined. This definition was built upon research findings as outlined in Chapter 3. The resulting recommendations and analyses make a template for best practice.

The central theme of this thesis is the idea of a successful living room environment being an alive occupational space, where residents, staff and relatives are interactive and engaged within the space. This thesis takes the view that an occupational space can be evaluated by behavioural observation and that this will be one way of defining the success or failure of the conversion

process to an HMU. This thesis has demonstrated that using interactive occupation and social engagement will provide outcomes which are statistically robust and which, in this case, convincingly established that the HMU environment had greater improvement in interactive occupation and social engagement than the TMU. In interview, the relatives and staff were able to distinguish how and why they favoured the HMU environment over the TMU environment and how and why the HMU environment exceeded the TMU environment in interactive occupation and social engagement.

9.4 APPLYING CASE STUDY LEARNING: TYPOLOGY COMPONENTS

This thesis argues that when evaluating an environment, all aspects of the environment must be taken into account because they are interdependent in their effects. The findings of this thesis suggest that all components of a typology are interdependent.

HMU, nurse: I think that it is a combination of everything. The fact that the whole area has changed because of the structure and the way that the tables are, your kitchen and the way the food is served and having more staff there to spend more time. Now it is nice and easy going. There is time over the meal. Before, to be blunt, people were shipped in, handed the meal, finished the meal, were shipped out again. But now it is much more relaxed. It's a combination of everything, everything taken into consideration. The staff are more engaged with the residents. They have more time with them. They are more focused on each individual resident and their likes and dislikes. It feels more like a family.

A new physical environment, with open plan and kitchen, sets the stage for the homemaker role. This role is dependent upon operational changes which facilitate freedom from institutional forced routines. Unforced routines enable person centred care offering patient choice and greater interaction. Each component is essential to create an HMU which facilitates greater social engagement and interactive occupation.

The typology components are given in Table 9.1 below and are recapitulated with specific recommendations for creating HMU environments in the sections following.

Table 9.1: Household Model Unit Typology for a Dementia Secure Unit

<p>PHYSICAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • aspects of a traditional ward type design in the arrangement of hallways and communal living spaces which promote privacy • main entrance or front door opening onto open plan communal rooms • functioning unit kitchen within the integrated dining communal space • separation between the communal spaces and the private bedroom areas • between 15 and 25 residents
<p>OPERATIONAL / ORGANIZATIONAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • unforced routines that promote resident choice and independence • homemaker, or similar, allocated to the kitchen and open plan area
<p>SOCIAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • relationship focused care that facilitates social interaction and participation in household activities of daily living • flexible and person-centred staff roles

9.4.1 Physical Components: Institutional Hallways, Privacy, Size, Space

The two nursing homes examined in this thesis are typical of large Irish nursing homes. Each pre renovation nursing home complex contained around 80 beds. There was one central entrance which served the whole complex. Visitors and staff who wanted to go to the dementia unit, which was at the rear of the complex, had to walk down hallways past the bedrooms of residents. If the bedroom or toilet doors were open, the visitors were able to see the occupants within, some of whom could be in a state of undress or be compromised in some other way. The expectation of personal space and privacy in the bedroom and toilet spaces, which we have in Western culture, was violated by the design of the building. By dividing into four physically distinct units, the two nursing homes were able to reconfigure their spaces, making each unit physically separate. Each had its own front door entrance. Staff and relatives no longer walked through private spaces to

get to another unit. The interview findings of this thesis strongly support this course of action for other similar nursing homes.

HMU's contain 18-25 residents. Both of these nursing homes under study chose to accommodate 18 residents in each of their units. Considering the size and nature of the existing TMU environment, there were several reasons why the Executive Directors did not choose to create even smaller units.

For both renovations examined in this thesis, the traditional style nursing home complex could be divided to fit around existing communal rooms if there were around 18 residents. If the household were half the size, twice as many communal rooms would have to be created if each unit was to be autonomous. This would incur, not just additional renovation costs, but also a year on year loss of income from those bedrooms which would have to be converted into the communal rooms (if additional rooms were not added on). Extra rooms would mean extra monitoring by staff.

Smaller scale units were not considered feasible in terms of staff and operations. For example, if there were double the number of unit kitchens, there would have to be twice the number of delivery runs from the central kitchen to each individual kitchen. There would have to be twice as many household coordinators, activity coordinators and homemakers.

According to the calculations of the Executive Directors, smaller units would not be economically viable. They spoke of other disadvantages. Smaller units require fewer staff to run them. Fewer staff would make it very unlikely that a separate homemaker role could be employed for each unit. There is not the range of residents to care for, making the working environment less stimulating and repetitive over time. In smaller units there is the risk that staff

become over involved with the residents, creating emotional stress. A smaller pool of workers provides little flexibility for illness and annual leave.

NH2 unit was able to accommodate the 18 residents with staff and relatives in the communal sitting room, without it looking either too big or too overcrowded. There was a nice sense of spaciousness, but it was not so large that people became lost in the space. It was a comfortable size and shape for people to feel that they could see and be part of whatever was happening. The open plan area, with the grouping of furniture, stimulated the residents to be more interactive with their environment and to engage more with others. The spaciousness of the unit allowed better manoeuvrability with walking frames and wheelchairs and gave better staff access when using hoists.

There were plans to enlarge the open plan area of NH1 as the space was cramped when it was fully occupied. It could be hard to manoeuvre people into the dining space between the tables in a wheelchair. It was sometimes hard to get a vacant seat in the sitting room area. In addition, the division between the dining area and the sitting area was more demarcated and abrupt. A person was either in the sitting room or they were in the dining room. There wasn't the sense of fluidity and casual informal movement between tables and sitting areas that was seen in NH2. A larger space with grouping of furniture would make moving from sitting to dining space more casual, spontaneous and fluid, as it was in NH2. It would also make it easier for staff to use hoists and wheelchairs and the large specialized seating chairs.

It is recommended that any renovation or new build give consideration to creating space for the selective grouping of domestic type tables, chairs and sofas to create areas of semi-privacy. Furthermore, spaciousness is required between the furniture groupings for the use of hoists,

wheelchairs and walking frames. On the other hand, consideration also has to be given to keeping the space from becoming too large to visually monitor and inhospitable.

Both units were given a front door entrance. Visitors and staff no longer reached the units by walking down the corridors of the nursing home complex past individual bedrooms. For them, the open plan areas of the HMU's were more spacious, attractive and accommodating than the TMU's they replaced. HMU visitors tended to remain in the communal living spaces, rather than to go into the personal privacy areas for both these reasons. In this way the unit was homelike. Visitors to domestic houses remain in the communal living spaces and do not visit in private bedroom spaces. Once the open plan communal rooms were established as appropriate and semi-private places for visiting family members, the doors leading to the hallways formed a psychological barrier and there were fewer relatives going into these private hallway spaces unless there was a specific reason to do so. These points identify how the structure of a traditional style of nursing home can be adapted to become a more homelike and person centred HMU.

There was no disagreement that the provision of privacy was an important and positive development for the HMU. It reflected the person centred care values that were being adopted by the units and reflected social values held in the wider society of zones of privacy in a home. The provision of privacy and the respect this shows for the individual is a pretty fundamental tenant of any household provision of care which may be developed. Having a front door with access directly to the open plan area is essential.

9.4.2 Physical Components: Open Plan and Kitchen

There is a tendency for people with dementia to sit together in communal rooms. An open plan layout is recommended to allow people to sit in one of a number of chair and table

groupings. This gives a sense of semi-privacy, while, at the same time, offers a sense of inclusiveness. Residents can participate vicariously in the action and social contacts which occur within the room. They can see who is coming or who is leaving. They are present if anyone wants to make social contact. They may choose to participate in some interaction or activity, either on their own or with others. They can observe the cues for mealtimes and take themselves to and from the dining table areas, sitting where they like. In short, the open plan area for people with dementia was successful in providing purpose, cues for action, and opportunities to exercise choice, as well as opportunities to interact with the environment and to engage with others.

Placing chairs in the vicinity of the front door gives residents the chance to be at the 'centre of things' with the coming and going. Having the kitchen and the busy homemaker in plain view makes the area attractive and gives vicarious participation. All of these ideas make the open plan area more interesting and popular. The spontaneous interactions that occur as a consequence contribute to a sense of cohesion and community.

For the relatives, the front door opening directly into the open plan area is an effective way of orienting them to what is going on in the unit and for locating family members. The open plan space and kitchen offers potential for welcome and greetings from the staff, and participation with whatever activities are happening in the space. It gives a sense of busyness and unity, a sense of being in a domestic household. Institutional design features and furnishings create barriers for relatives, as well as for residents. In the interviews, relatives identified how domestic style furniture and architectural design features were more familiar and empowering and make it more comfortable to visit their family member.

This thesis recommends that the kitchen is strategically placed within the open plan space to give the homemaker a good view of all that is happening in the room whilst still working in the

kitchen. The kitchen area is more likely to be fully used by staff if they are able to monitor the residents whilst at the same time carrying out their work tasks. The open plan area makes person centred care work for people with dementia.

Having a working and functioning kitchen in the open plan area, with a homemaker attached, gives the room a sense of focus and purpose. It visually encourages and prompts the residents to participate in domestic tasks. This thesis promotes the use of domestic tasks with residents with dementia. For women in particular, many household tasks are over learned through decades of repetition, which means that the interest and ability to undertake these tasks is retained well into the disease process. Other, more unfamiliar activities do not have these advantages. Even vicarious participation in kitchen tasks supplies sensory stimulation and improves eating and drinking (Cioffi, Fleming, Wilkes, Sinfield, & Le Miere, 2007; Cleary, Van Soest, Milke, & Misiaszek, 2008). Having a kitchen in the open plan area creates a homelike and domestic occupational space. This provides stimulation, as well as comfort, and a sense of home. It has potential to stimulate, maintain and support a sense of who one is through retained skills and abilities (Brawley, 2006; Calkins, 1988).

9.4.3 Operational Components: Homemaker, Unforced Routines, Resident Choice

This thesis recommends that decisions are made concerning how the kitchen will be used. This includes Health and Safety and Infection Control issues. Operational policies should be ironed out before the physical design is finalized, as they will determine the final design. For example, if residents and relatives have access to the kitchen, this will require safety design features. Cooker switches, counter top ovens with easily accessible locked cupboards for storage when not in use, space allowing wheelchair access and low countertops which allow residents to mix and

participate while sitting outside the kitchen, are some relevant design basics that have been adopted elsewhere (Brawley, 2006; Calkins, 1988).

Any nursing home contemplating providing domestic tasks such as cooking must work within regulatory guidelines and statutory licensing authorities. Rather than using the legislation and guidelines as a constraint to the services, dialogue needs to be established and the issues worked through before the units are built, as kitchen access for residents and relatives will help to shape the kitchen environment and accessibility. Creating access to the kitchens is certainly feasible; there are many nursing homes in the research literature where residents participate in cooking activities. Hands can be washed; hazards can be minimized.

The unit kitchen allows the meal time flexibility which releases staff from so many tasks geared around time guillotines. However it will only operate well if it is staffed by the homemaker during the working day. If the environment is to work to its full potential, and if residents are going to have a more homelike experience where they are engaged and interactive, this post must be protected. The status of the homemaker must be equal to other care workers and their full role defined. This thesis recommends that the interactive and engagement work homemakers do with residents is clearly identified, and that it receives active support and direction of management.

There were attempts to expand the homemaker role to provide art and craft and other activities between meals. However, this had not been totally successful. Many of the homemakers were uncomfortable with these duties and did not perceive this to be part of their core identity. At the same time, domestic tasks were not utilized to their fullest extent to engage the residents and to assist the relatives to engage with them. This thesis recommends that the role should be defined in a written and agreed job description before people are appointed.

Mentoring, training and supervision from an experienced successful homemaker, or occupational therapist who is familiar with the how this role could be developed, would be invaluable.

Those interviewed for this thesis were unequivocally supportive of the greater interaction and flexibility of the HMU's. They reported that everything worked better and that residents, staff and relatives were happier as a consequence. Reducing the stress of the time guillotines for staff created a more homelike, friendly and open nursing home. This has implications for the deployment of staff. For example, putting residents to bed or getting them out of bed at times which suit staff handover goes against the ethos of person centred care and culture change. Getting residents up, washed and dressed is labour intensive and providing more flexibility has implications for the rostering of staff.

The homemaker was an additional post which became an indispensable component of the domestic and homelike environment. If there was no homemaker post to make the kitchen operational, the kitchen would effectively become a serving station for the main kitchen. This would be a waste of space and money. This thesis recommends that these operational issues and costs be taken into consideration when planning a household unit.

This thesis recommends that staff are allocated to one unit. This allows workers to get to know the residents and relatives in more depth and to identify more strongly with the unit and their work. It respects the knowledge and relationships that staff have built up with residents and relatives.

9.4.4 Social Environment and Culture Change

Those that advocate for culture change state that the care of TMU nursing home residents is focused on their physical and medical needs, while their psychosocial needs, how they live out

their lives, is neglected. Psychosocial needs, such as the needs for engagement and interaction, are less obvious and more difficult to monitor than many physical, medical and nursing needs. Respecting the personhood of each resident is a complex task which includes awareness of residents' past history and what will interest them. This may not be an easy task.

Residents lose their ability to interact and engage. This loss is compounded by the inactivity of living in a nursing home, where familiar environment prompts to daily life tasks, are absent and where daily life tasks are done for them. Daily life tasks are done more quickly by staff without involving the residents. Waiting for and encouraging residents to actively participate in their own personal care takes much time for staff who are under pressure to move on to the next task. These issues result in increased resident apathy and inactivity. This thesis recommends unforced routines and flexible person centred care as described extensively in previous chapters. To enable this, new procedures and operational policies are required, as are staff training and management reinforcement of new patterns of work.

When the family member enters a nursing home, relatives are disempowered. A nursing home is unfamiliar territory which is controlled by the staff. It has spoken and unspoken rules and regulations. The power rests with the staff as 'owners of the territory' to take the initiative to promote joint cooperation with the relatives in the care of the residents. This thesis recommends that staff take responsibility for extending a welcome to relatives and map out how they will work jointly with relatives to provide the best person centred care for each resident. Developing a casual and cooperative relationship between the staff and relatives is one of the most important indicators of a culture change.

Most families are distressed when a family member is admitted and may be exhausted, both physically and mentally. When their family member is admitted to the unit, they experience a

deep sense of loss, as well as the relief and the guilt feelings. This is a critical time for the relatives and they need to be supported. The homemaker role was well received by relatives. This thesis recommends formalizing the outreach and welcoming function of the role and including this in the role's job description.

This thesis recommends that life history books should be instigated at intake and that this be part of the unit's operational policies. This guides the process of joint staff and family cooperation and maintains the personhood of each of the residents. Periodic staff and relative reviews would ensure that relatives are consulted and remain involved in the care of their family member. Relatives would know that the information that they provided was being used and that their family member's personhood was being maintained.

Families need specific information on how to complete a life story book and positive feedback as aspects of the work are completed. This may be a role for the household coordinator. And although the concept is called a life story book, non-valuable objects which are meaningful can be brought in to handle and to stimulate the memory and interest of the resident and to provide conversation with the staff.

The lack of engagement between the family and staff, identified by the staff and relative interviews, is unfortunate. The relatives lost out on support and encouragement which would assist them to work through some of their emotional feelings of loss, exhaustion, and guilt. They also lost out on the training that the skilled staff can offer in how to engage with their family member as their abilities decline. The staff lost out on a resource, the time that relatives were able to devote to the resident and the existing relationship and knowledge they had of the person. This thesis recommends that staff set time aside to work with relatives to enable them to make use of the specialist resources and activities of the nursing home to engage with their family

member. Some relatives were already doing simple activities such as hand massages, but staff could promote other activities, such as simple games, joint browsing through magazines and so on. This needs to be handled delicately so that the families do not feel that they are being exploited, but that the staff are helping them with the problem they face – how to maintain an engagement with their family member. They would also feel that maintaining their relationship is an important priority to the staff and the nursing home.

As discussed in Chapter 3, the role of management is crucial in developing a successful HMU cultural environment. Staff were sensitive to the wishes of management and sometimes conjectured these wishes. Even with staff training, culture change depends upon managerial approval. This thesis recommends that managers plan how their role can best reinforce person centred care. It is incumbent upon management to work out what culture change means to residents and to relatives and to then work on how they need to monitor, reward and shape this behaviour. Reinforcing this culture change has advantages for managers and the nursing home. As expressed in the staff interviews and the research literature, culture change increases staff satisfaction and creates better work performance. It gives staff autonomy, self confidence and a sense of ownership of their work. Unforced routines create a sense of job flexibility, variability and spontaneity, which in turn creates staff contentment, reduces absenteeism and develops better peer support (Doty, Koren, & Sturla, 2008).

This thesis recommends that the communal living space is defined as an occupational space. Interactive occupation and social engagement, measured through interview and through observation, are prime indicators of the culture of an organization. When interactive occupation and social engagement are high, the occupational space of the communal sitting rooms is alive, vibrant and interactive. This thesis recommends that these outcome measures are used more

frequently in order to define the culture of the living, visiting and working environment in residential care homes.

The next section of this chapter will discuss the next steps which would be needed to develop the Assessment Tool for Occupation and Social Engagement (ATOSE) as a tool for further research in evaluating the interactive occupation and social engagement of care environments.

9.5 FURTHER DEVELOPMENT OF THE ATOSE

Social science research must be relevant and case study research must have applicability to situations in the wider world. This section describes the qualities of the ATOSE and how it can be brought forward to assist the research of others. The ATOSE was devised to be an assessment that was not intrusive or judgmental. The aim of the ATOSE is to describe time use of residents, staff and relatives in one environment. The purpose of the ATOSE is to enable comparison of different environments using interactive occupation and social engagement as outcome measures. This has relevance to many situations.

The (ATOSE) and its protocol were new developments in the assessment of people with dementia in residential and other care environments. The next section describes the psychometric qualities of the ATOSE which establish it as a reliable and useful tool in this research and also in future research.

9.5.1 Psychometric Qualities of the ATOSE

Objectives

The purpose of the ATOSE assessment procedure is to describe and compare the time use of residents, staff and relatives in different (pre and post renovation) environments. The conceptual basis of the ATOSE was the assumption that interactive occupation and social engagement

characterize quality of life (Harvey, 1993) for residents living in a residential care environment. It gives acknowledgement to the influence of staff and relatives on this environment and promotes the understanding of the communal living areas of care environments as an occupational space.

The ATOSE protocol was devised with reference to specific ethical and procedural issues as described in Section 4.6.5. It observed all persons using the occupational space and used a procedure which was acceptable to all. The observation process was explained to participants, was open to inspection, and consent could be withdrawn. The observer used consistency in time, action and sitting position in order to habituate those within the room to the observation and to allow the room to function normally.

Robustness, Accuracy and Sensitivity to Change

The assessment tool and the structured observation were robust. The ATOSE component categories were clearly defined in order to facilitate fast and accurate recording, without having to make complex decisions (ref: Appendix 2). Each person's behaviour was marked in a single category, with an orderly structured recording protocol for observing each person within the room, thus eliminating error through duplication or uncertainty. The accuracy of the ATOSE was enhanced through the use of proximal outcome measures. This accuracy was not undermined by inferring unobservable motivational or emotional states.

The ATOSE showed sensitivity to change. It recorded significant differences between the TMU and HMU environments. These changes were consistent between the two nursing homes, giving confidence in the assessment tool as an accurate measure of environmental change. This gives confidence in its ability to predict outcomes in parallel research situations.

Reliability

The assessment tool was reliable. The ATOSE showed excellent inter rater agreement of over 90% (ref: Section 5.1.1). The assessment tool offers consistency and reliability, with minimal errors of judgement.

Validity

There are many types of validity for a research assessment tool. The various types of validity are discussed below:

- The content validity of an assessment tool depends on the extent to which it represents the behaviours evaluated. The observable behaviours of the ATOSE were clearly defined and were not interpreted or inferred to describe an inner psychological state. The content validity of this research was also supported by the findings of other research in traditional environments in that residents spend much of their time in passive behaviours, and much less time in engaged and interactive behaviours.
- An independent data source which supports the findings of research gives convergent validity. The findings of the qualitative interview data from the management, staff and relatives supported the observational data of the ATOSE.
- Construct validity concerns the relationship between the theoretical underpinnings of an assessment tool and the degree to which it measures the constructs being investigated. The theoretical underpinning of the ATOSE is the continuity of behaviour theory of Proshansky, Ittelson & Rivlin (1970), which states that (a) the environment impacts on human behaviour and that (b) behaviours observed within similar environments tend to be consistent. The outcomes of this research support this theoretical positioning in that the findings for each type of environment had

similar outcomes. A convenience sampling method was used to find occupational therapists who reviewed the components of the ATOSE. Their feedback was used to validate, generate or collapse the various different components of the ATOSE.

- Internal validity refers to the ability to make a 'clear causal inference from the data' (Brewer & Hunter, 2006, p. 134). The observational data (Tables 5.1, 5.2 and 5.3) demonstrated that distinct and highly significant changes occurred when the HMU, in its full complexity, was created. Furthermore, the visual chart data demonstrated that the TMU and HMU data was often measured in distinct TMU versus HMU trends. This strong consistency gives confidence in the validity of the assessment tool.
- External validity refers to the confidence one can have in generalizing a causal relationship to other situations which have different samples and populations, social settings and time periods (Brewer & Hunter, 2006). External validity is confirmed when different methods and ways of measuring the same variables shows similar findings (Brewer & Hunter, 2006). External validity for this study is strongly supported by Smith, Mathews and Gresham (2010). This Australian study employed similar outcome measures to this thesis. Their observed levels of resident Interactive behaviours showed an increase from 20% of baseline observations to 33% after the move to homelike cottages (increase = 13%). This is similar to the changes recorded in this thesis study, with the percentage of Total Resident Markers spent in Engaged and Interactive behaviours was 24% in the TMU and increased to 41% in the HMU (Table 5.6, increase = 17%). This thesis study and the Smith, Mathew and Gresham (2010) study show an increase in staff Engagement with residents. They found that staff members were engaged in Interactive Tasks with residents in 16% of the observed time before the relocation. After relocation in the homelike cottages, this

had increased to 33%. After training, there was a further increase to 41% of observed time. The parallel results obtained in this thesis research study for staff Engaged & Interactive behaviours were 50% pre renovation improving to 61% post renovation (Table 5.13). The results are not directly comparable as the same observational tools were not used. The direct statistical comparison is not possible due to the physical, social and operational environment differences between the HMU's and the cottages. However, both studies support the same theoretical positioning, namely that providing the essential multi-components of a homelike domestic environment has a positive impact on levels of interactive occupation and social engagement. Hence, by supporting the same theory separately and using different assessment tools and methods, external validity is provided for both research endeavours (Yin, 2003).

9.5.2 Description: Optimal Service Model

The intention of social science and case study research is to be relevant and applicable to the wider world. The findings of this thesis suggest an optimal service model for the functioning of an HMU communal living area, or occupational space, of the unit. This will be briefly described below and is based on the typology components presented in Section 3.5 and gathers together the information from the qualitative interviews (ref: Chapters 7 & 8) and the information gathered from other published research presented in Chapter 3.

The optimal HMU is centred on an open plan communal sitting and dining room, with the bedroom and private care spaces clearly separated from this open plan space. The kitchen unit is located in a prominent position with full view of the open plan space for the homemaker, who works in the kitchen and open plan area throughout the working day.

The open plan sitting and dining room functions as an alive occupational space, with people coming and going through the front door. Residents participate in specialized activity groups or in domestic tasks in the space, which attracts residents, staff and relatives to look and enquire and participate. Spontaneous individual activity is encouraged as well as formal group activities. There may be more than one activity happening at one time in the space. Relatives and staff are seen to join in activities spontaneously. They may share intimate time with a resident by sitting on the sofa to chat or watch television with them. They may sit at one of the dining tables sharing refreshment, whilst engaging them in conversation. Staff show relatives how to use some of the resources they may have in order that relatives can share therapeutic and leisure activities with their family member as part of their visit.

The domestic style furniture is grouped to provide semi-private sitting areas. The dining tables are round to facilitate access, communication and engagement. The tables and the activity that they generate are clearly visible from the sitting areas, encouraging exploration and participation. There is simple, easy and direct physical access to and from the tables to encourage unprompted movement between them and the sitting area. Those with mobility problems are not prohibited from this movement by untoward distance or obstacles that may be in the way.

There are clear operational policies which facilitate person centred flexibility and resident choices in such areas as getting up, going to bed, and meal times. The staff are trained to work in a client centred way, paying attention to the responses of each individual, and especially those who have lost their ability to use language effectively. The actions of management encourage the development of unforced routines which are responsive to resident need. Staff use these unforced routines rather than a rigid task based approach devised to support staff shift changes and the time guillotines required by centralized kitchens.

In this optimal service, operational policies are responsive to the needs and requirements of residents, relatives, management and staff and take full account of the statutory and regulatory authorities. Clarity in these policies gives the go ahead which enables the kitchen resource to be used frequently and safely by residents and relatives. This gives the whole environment a spontaneous, busy, personal, and home like atmosphere. Relatives are encouraged to use the kitchen as if it was the home of their family member, which enables familiarity through habits and routines and thereby enhances relationship.

In this service provision, relatives need to be involved in a psychosocial care plan from the beginning admission stages. The joint creation of life story book task actively includes the relatives as part of the care team. In addition, part of the homemaker role is to welcome and include relatives in order to make them feel fully 'at home' in the unit.

9.5.3 Recommendations for Policy and Application for Practice

This research demonstrates that changing from a TMU to an HMU environment can significantly change the interactive occupation and social engagement within the communal living room. Interactive occupation and social engagement are important components of quality of life for residents with dementia.

The recommendations in this section are based on the information in the Discussion and Interview Chapters. This thesis proposes that statutory and regulatory agencies, nursing home professional bodies and professional associations should actively investigate and preferentially shift their policies so that they promote better quality environments, such as evidenced in the change to an HMU in this study.

The research indicates that the Household Model Unit works better than a Traditional Model Unit. It is therefore recommended that the HMU be adopted in its entirety whenever possible. It makes life better for residents. It provides a better visiting and a better working environment. This thesis argues that all components are needed for a complete HMU, as given in the HMU typology. However, it is also recognized that these recommendations carry financial and organisational implications. In the real world, not everything can be done at once and some environments may need to phase the changes in.

The following is a summary of the main insights of this thesis, with specific recommendations for improving environments, not only for people with dementia in residential care, but also for those that care for, work with and visit them.

Homelike Physical Environment

The most important insight from this thesis is that communal living rooms are occupational spaces and can be evaluated as occupational spaces. In other words, the purpose of the rooms is acknowledged to be social engagement and interactive occupation. This concept needs to influence nursing home managers and commissioners of new and refurbished builds, architects and all staff working in the units. The following recommendations increase the occupational and engagement potential of occupational spaces for residential care for people with dementia.

- 18 residents per unit , which gives benefit of economy of scale as well as a variety of social stimulation for residents and work stimulation for staff
- Open plan with integral kitchen to provide visual awareness of activity within the room to promote resident interaction and self-initiation

- Open plan to enable supervision and monitoring of residents. No separate nursing office or nursing station to prevent staff from congregating there, which physically and emotionally distances the staff from the residents and the homelike setting
- Front door access to the open plan space, which creates privacy in the bedroom spaces, and, in accordance with Principle of Spatial Centrality, creates a focal point of interest and congregation for the resident community
- Use of round tables to foster communication, interaction and engagement for residents, staff and relatives
- Flexible use of the dining and sitting room sections to promote spontaneity as well as the semi-privacy and intimacy.
- A stimulus rich environment to encourage spontaneous interaction (which is even more meaningful for people than programmed or planned activity). Magazines and other items of interest are left around; a stimulus rich environment encourages self-initiation of residents and provides engagement tools for staff and relatives.

Operational Policies

There were positive changes in the operational policies which were key to the success of the HMU. These included changes to work practice, hierarchy, and job roles. The whole enterprise of the HMU revolved around the new homemaker staff post. One nursing home had tried to remove the post, and they found it affected the functioning of the HMU. In other words, the homemaker was critical to the success of the HMU. This post enabled the unforced routines, as the staff knew that residents could remain in bed if they wished and still receive their breakfast later. Staff knew that the residents would be supervised in the open plan room.

The operational policies have financial implications. As indicated on page 225 of this thesis, one Executive Director estimated the HMU staffing costs increased from 56% of all TMU income to 62% of all HMU income. This has implications for profitability and retention of earnings for owners and shareholders.

The staffing changes which add to the positive operations of the HMU are summarized below.

- The nursing role was strengthened to focus on nursing duties (such as wound care, medication and patient management) and they were freed from their administrative and supervisory roles, such as rostering and supervision of staff. This meant they could be spread across two units, with consequent savings of salary. The organisation and local management of the staff devolved to the household coordinator.
- A household coordinator was created to coordinate and supervise the work of the care staff. This is a positive development in that it shifted the emphasis of personal care towards the psychosocial, as opposed to the nursing, model of care.
- It is recommended that the household coordinator should coach the relatives to create the life story book information and be responsible for the integration of the life story book with the psychosocial care plan which should parallel the nursing care plan in importance and function. This will prioritize psychosocial objectives for the resident and supportive interventions for the relative and provide a more cooperative and rewarding work environment for care workers.
- The homemaker monitoring and supervisory function was key to the successful open plan space. This key role must be clearly differentiated from the care workers role in order to prevent it from being subsumed by undertaking care worker duties.

- It is recommended that the homemaker role be expanded to include practical day to day welcoming and interaction with relatives. This aspect of the role did not develop spontaneously. Therefore it is recommended that occupational therapists be used to give specific training and modelling for these roles to encourage participation and engagement in the familiar domestic environment. This has particular reference to rectifying the inevitable biographical disruption which occurs for both resident and relative as a consequence of admission to the nursing home.
- It is recommended that occupational therapists train and supervise the homemaker in their role of encouraging resident domestic interests. This capitalizes on retained, familiar and over-learned tasks which the person is still able to perform and is still interested in performing.
- It is recommended that an occupational therapist provides practical training and supervision for the homemakers in how they can encourage relatives to engage with their family member using the familiar domestic environment and appropriate activities.

Rigid inflexible operational policies, time guillotines and forced routines create an institutional environment, which negatively affects residents, staff and relatives. The development of the unforced routines had an extremely positive effect on staff behaviour, commitment and involvement. Staff became happier and as a result, the whole of the HMU became happier. In addition, their work was easier, with less agitation and resistance from the residents in this more flexible, less rushed and pressured environment. The changes resulted in reduced stress for staff and better work practices. Relatives and staff report a positive change in the living, working and visiting environment as a consequence. There were important operational steps which facilitated this new working environment, such as:

- Allocating staff to work solely within the dementia unit, rather than being rotated throughout a nursing home complex. This fostered identification with the residents and the unit. It allowed staff to build up greater knowledge and rapport with the residents and their relatives and thus enabled staff to exercise greater knowledge and skill in their interventions.
- Adopting culture change with unforced routines and person centred care practices which allow resident choice.
- Removal of the time guillotines which are set for staff and organisational convenience. Examples of these are getting residents up at times which suit the change-over of staff and shepherding residents to dining tables to wait for food to arrive from the centralized kitchens

Staff wanted management to approve their work and to give clear judgements about how they were to carry out their work. However, a lack of clarity resulted in confusion. Staff placed their own values on the work they were doing and rationalized their behaviour, believing what they were doing was in line with the intentions and wishes of the management and organisation. This was most evident in the staff interviews around the roles and duties of the homemaker. Modelling, hands-on supervision and the direct recognition of wanted behaviours by those in supervisory and training positions is powerfully effective at creating clear objectives, changing staff behaviours and creating the person centred environment that truly promotes a person centred approach. Active managerial intervention around operational policy is critical to the success or failure of the HMU. In order to be clear and effective, operational changes must be actively promoted and facilitated by management.

Management are responsible for setting the parameters of care. This includes:

- Clarity regarding health and safety and infection control issues

- Overseeing the interface between visitors and staff
- Designating person centred initiatives with recognition of achievement
- Equal representation of the psychosocial approach to the nursing approach at management level
- Instituting recommendations and protocols for creating safe and hygienic environments which allow the full participation of residents and relatives in the use of the kitchen

Social Environment

The social environment of an HMU is person centred, offering resident choice. For it to function effectively, it must recognize each person's life history, individuality and personhood. Dignity is based upon the ability to maintain previously learned skills as far into the disease as is possible. Personhood is enhanced by social engagement and interactive occupation. These are the human features which define household and home likeness.

However, some homemakers and care staff struggled with the idea of providing activities for residents. They asserted they were not trained in this area. They did not see their role as providing this type of interaction and that this was not part of what they 'signed up to' when they took the job. On the other hand, they stressed their involvement in engagement and interaction when they were undertaking personal care activities with the residents.

In both nursing homes there was an expectation from the management that staff should undertake psychosocial interventions in which the staff had little expertise, confidence and training. The nurses were clear that they did not have the specialist training and expertise to train the care workers in person centred care and perceived that their professional role was in providing specialist nursing interventions. Whilst nurses are able to train and monitor nursing and personal care, consideration should be given for on-going supervision and monitoring by

professionals whose primary frame of reference concerns occupation, engagement and participation. Occupational therapists focus on practical methods to improve these qualities within the environment and are able to supervise and monitor staff and train others in practical methods to improve interactions and engagement with both residents and relatives. This includes the use of welcome and integration for the relatives and the use of domestic and kitchen tasks to counter the biographical disruption which is a consequence of being in a nursing home environment.

The following are additional recommendations which will promote a person centred environment:

- Staff to initiate and assist family to complete life story work and to then use this to create a joint psychosocial care plan
- Establishment of family routines and tasks which will help to offset the biographical disruption experienced by residents and relatives as part of psychosocial care plan
- Further use of activity for engagement, including kitchen tasks for residents and relatives
- Extending the role of the homemaker in the open plan area to include:
 - Use of welcome to engage relatives
 - Use of activities based on assessment of need and interest (for example, using specialist Activity Assessments)
 - Use of domestic, familiar and remembered tasks to encourage further resident engagement and interaction
 - Training relatives in the use of domestic, recreational and table top activity to promote engagement and to counter biographical disruption

9.5.4 Need for Further Research

This thesis provides a template for how the whole environment can be understood and described using quantitative observational techniques, qualitative interviews and descriptive narratives and photographs. It demonstrates how a typology can be devised to classify and understand an environment. It provides a template for the use of practical proximal observable outcome measures which are able to differentiate between environments.

It is recommended that the ATOSE be used as an assessment and observational tool. It has the ability to focus attention on the critical aspects of interactive occupation and social engagement. It focuses on proximal outcome measures which are clear to observe and do not require conjecture. Occupation and social engagement are readily seen to be important and critical for dementia care. Re-defining the communal room as an occupational space gives tremendous insight and promotes the objective to free the environment from its restrictions, including Health and Safety and Infection Control, in order to gain interaction and engagement. The ATOSE can be further extended by evaluating its usefulness with other client groups. This could be extended for those living in care environments:

- elderly residents with physical disability
- cognitive disability
- other mental health issues, including apathy / poor self-initiation
- sheltered housing
- other types of residential housing e.g. small house

The ATOSE has applicability for occupational therapists and occupational scientists to assess and evaluate occupational spaces. The ATOSE provides an evidence base about the functioning of communal spaces. This evidence base will assist those creating and regulating such spaces to

promote the adoption of better occupational spaces, which will improve the living, visiting and working environments for those who use such spaces.

Listed below are ways in which the research contained in this thesis could be extended.

- Replication of this study in more cases to confirm or to challenge the findings of this research.
- Creating other typologies, in order to understand, compare and improve environments and the quality of life for those living in residential care. The purpose of such research would be to identify other effective environments. By understanding more about the qualities of environments there can be a more effective match between residents and residential care.
- Using the ATOSE to compare the communal living areas of two or more existing environments. For example, two similar, but slightly different HMU's or two TMU's environments could be compared. This would enable more precise knowledge about specific environmental components and their contribution to outcomes.
- Determining the applicability of the ATOSE for other client groups, such as physical or intellectual disability. In addition, it is feasible to use the ATOSE protocol to assess a variety of environments ranging from day centres to sheltered housing.
- Using the ATOSE protocol to map and evaluate the difference an activities coordinator, occupational therapist or homemaker makes to an occupational space.
- Establishing concurrent validity of the ATOSE by assessing an environment with the ATOSE tool in parallel with another similar observational tool (such as those used by the other research studies discussed in Sections 2.2.8 & 4.6.5 of this thesis).

9.6 CHAPTER SUMMARY

This chapter has focused on the broader application of this research and its findings. It has shown how the research can impact policy and practice. It has described how an optimal service model would appear, and identifies how further research can build on and develop the key findings.

The next chapter, Chapter 10, summarizes the findings of the thesis as a whole and identifies the limitations of the research, before drawing the thesis to a close.

CHAPTER 10: CONCLUSION

This last chapter will review the aim, hypothesis and objectives of the research and indicate how the goals have been achieved. It will conclude the discussion about the effectiveness of changing from a Traditional Model Unit (TMU) to a Household Model Unit (HMU) as judged primarily from the viewpoint of the staff and relatives.

10.1 ENVIRONMENTAL FACTORS AND NURSING HOME RESEARCH

The theories of M. Powell Lawton, (Environmental Dociity Theory and the Competence Press Hypothesis) were discussed in Chapter 1 to show the importance of the environment to the functioning of people with reduced cognitive ability. In addition, Chapter 1 argued that life needs to have meaning for people living in residential care and that social engagement and interactive occupation provided meaning in life for people. It is upon this foundation that the whole of this thesis rests, that being actively occupied and socially engaged gives life meaning and makes a life worth living.

In Chapter 1, the complexity of evaluating environments was discussed. Some nursing home research has focussed on changes in relatively rare problem behaviours, such as agitation, as outcome measures. Other research studies cited in Chapter 1 used global quality of life measures and proxy reports of well-being. In contrast, this study used proximal indicators which were directly observable and which directly related to the environment. This study chose observation of the time use of residents, staff and relatives as outcome indicators. In addition, these observations were done over many weeks, rather than a one-off visit, in order to obtain trends in the pre and post renovation data.

The observational focus on interactive occupation and social engagement on residents, staff and relatives, is a unique contribution to the existing literature of environmental assessments.

10.1.1 Household Model Typology

This research continues a nursing home research methodology which has been developing over the last decade. This thesis rejects the simplistic quick fix solutions of architectural determinism (Chapter 2) and the simplistic grouping of nursing homes according to one or two features.

This thesis defined the HMU environment closely and it is worth repeating Table 10.1 below which summarizes it. This typology was based on available research articles and on the findings of this thesis. It defined the HMU environment and promotes the idea that it should be adopted for this class of residential environment for future research and comparison.

Table 10.1: Household Model Unit Typology for a Dementia Secure Unit

<p>PHYSICAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • aspects of a traditional ward type design in the arrangement of hallways and communal living spaces promoting privacy • main entrance or front door opening onto open plan communal rooms • functioning unit kitchen within the integrated dining communal space • separation between the communal spaces and the private bedroom areas • between 15 and 25 residents
<p>OPERATIONAL / ORGANIZATIONAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • unforced routines that promote resident choice and independence • homemaker, or similar, allocated to the kitchen and open plan area
<p>SOCIAL ENVIRONMENT:</p> <ul style="list-style-type: none"> • relationship focused care that facilitates social interaction and participation in household activities of daily living • flexible and person-centred staff roles

The interview data emphasized the essential distinctions between the two types of environments. A brief summary of these distinctions are given in Table 10.2.

Table 10.2 Comparison Table of Features: Traditional versus Household Model Units

PRE RENOVATION: TRADITIONAL MODEL	POST RENOVATION: HOUSEHOLD MODEL
A separate sitting room and dining room	Open plan sitting room and dining room and accessed by front door entrance
Food prepared by centralized kitchen off the unit	A functioning kitchen in a dominant central position within the open plan communal living area
No homemaker role	Homemaker in open plan area
Institutionalized routines and time guillotines	Operational changes to give flexibility, spontaneity and empowerment to staff and residents
Care defined by task accomplishment	A person centred model of care offering choice, occupation, and engagement

TMU's are not clearly defined in the literature and they vary widely. As is often seen in the literature, the two TMU environments in the HMU interviews were most often defined as being in opposition to the HMU environment, rather than being defined for their own positive qualities (Table 10.2).

Like the concept of the Special Care Unit (SCU), the conception of a single TMU entity is too broad for effective description, understanding and comparison. This thesis recommends that different typologies are developed out of the generic TMU classification. This will require further analysis and research.

10.2 SUMMARY: MIXED METHODS CONVERGENCE

Using a mixed methods approach which combines quantitative and qualitative data gained from two separate nursing homes, has given more depth than using one method or reporting on one nursing home alone. Because two different nursing home environments had such similar outcomes, it was unlikely that the results were due to any idiosyncratic confounding variable and more likely that the intervention had relevance to other real world similar environments (Johnston & Smith, 2010).

The quantitative information of this thesis was able to confirm the effectiveness of the environmental change. Using naturally occurring case studies allows application to the real world. This is in contrast to the scientific and laboratory based research which leads to complex issues being reduced to simplistic answers, producing design guidelines which are based on simplistic speculation and hypothesis (Parker-Oliver, Aud, Bostick, Schwarz, & Tofle, 2005).

Qualitative interviews give valuable information about how and why environmental components and patterns of environmental relationships (Proshansky, 1976) have an effect on the real world day-to-day experience of using the communal rooms of the nursing homes.

In this mixed methods study, qualitative interviews were used to validate and expand on the data from the observations. These interviews gave insight into the essential components which were most effective in creating the positive and statistically significant changes. This enabled a complex multi-component typology to be constructed, based on sound a priori research findings.

The quantitative methods were effective in verifying changes in resident behaviours. The charts showing the observational results in Chapter 5 demonstrate how baseline behaviours had changed, and how the interactive occupation and social engagement components had altered, over and above that which would be expected simply by the residents and staff spending more time in the room. This strongly suggests that there was a change in the culture of the environment.

The following sections of this Conclusion Chapter will discuss the hypothesis and aims of the thesis and bring the data to a summary conclusion. Limitations to this current research and recommendations for future research will end this chapter and this thesis.

10.3 CONCLUSIONS: AIM, HYPOTHESIS AND OBJECTIVES

In the TMU's, the residents typically spent most of their day sitting in chairs around the wall, staring into space or sleeping. The focus on interactive occupation and social engagement, as determined by the Assessment Tool for Occupation and Social Engagement (ATOSE), grew out of this observation.

The aim of this study, as outlined in Chapter 1, was to determine the change from a TMU living room environment to a HMU living room environment for people with dementia and to explore how the changes affected the Social Engagement and Interactive Occupation of the residents, staff and relatives who used these spaces. This aim was achieved by the use of extensive interviews of the Executive Directors, staff and relatives and by the detailed analysis of the observational data.

The research hypothesis was very similar to the aim. It was hypothesized that the establishment of an HMU would change the levels of Interactive Occupation and Social Engagement for residents, staff and relatives when compared to the equivalent TMU. The observational data showed significant increases in Interactive Occupation and Social Engagement results for the staff and relatives. The significant increase for the relatives data was in the combined Engaged and Interactive Grouping category.

The objectives of this research were all fulfilled in the following ways:

1. Both quantitative and qualitative research methods were used in this mixed methods case study, giving greater understanding about the complex change from a TMU to an HMU environment.

2. The observational research protocol was able to clearly differentiate between the TMU and HMU environments, using Interactive Occupation and Social Engagement as outcome measures.
3. In-depth insight into the TMU and HMU experiences were given by the relative and staff and Executive Director interviews and were reported in this thesis.
4. The important features which created the positive outcomes in the HMU's were identified and formalized into the various components of a typology which distinguishes the household model.
5. The interview data explains how and why the components of the typology created the variance between the TMU and HMU environments.

10.3.1 Summary Conclusions: Quantitative Outcome Measures

There were a number of significant results for the residents (Table 5.1). All results were at the $p \leq .001$ level. The categories which achieved this level of significance for the residents were:

- Total Resident Markers (denoting time spent in the room)
- Engaged & Interactive Grouping (denoting all Interactive Occupation and Social Engagement category results)
- Social Engagement
- Interactive Occupation
- Independently Interactive

There were five staff categories that achieved significance (Table 5.2). All results were at the $p \leq .001$ level. The categories which achieved this level of significance for the staff were:

- Total Staff Markers (denoting time spent in the room)
- Engaged & Interactive Grouping (denoting all Interactive Occupation and Social Engagement category results)

- Social Engagement
- Total Non-Engaged Grouping (denoting all Work and Non –Interactive categories)
- Work Task

The resident results indicate that they were spending more time in the HMU communal living spaces, than they did in the TMU communal living spaces. When they were there they were more independently active, more socially engaged and more involved in interactive occupations. This thesis argues that this greater interaction and engagement improved the lived experience of the residents.

The creation of the homemaker post assigned to the kitchen and open area space, created a greater staff presence. As a consequence, there were significant increases in the time that staff spent socially engaged with residents, as well as performing their work tasks. This meant that, for the residents, they could expect more staff engagement with them in the HMU and that they would have the increased presence of staff, and the busyness of the staff, in the room.

The increase in the relatives' presence in the communal sitting room areas was not significantly different between the TMU and the HMU. The comparatively low number of daily markers for the relatives meant that statistical significance was only achieved in the aggregated Engaged and Interactive Grouping category. Residents could expect more engaged and interactive contact with their relatives in the HMU environment.

It had been expected that there would be significant change in the Total Relative Markers category post renovation denoting a greater increase in visiting by relatives. This was not the case (Table 5.3). The relatives described outside pressures which limited visiting, such as responsibility for child care, travelling distance and transport difficulties. In addition the current visiting

patterns reflected the visiting patterns which were developed before the family member entered the nursing home.

10.3.2 Summary Conclusions: TMU Expectations and Attitudes

The pre renovation interviews conducted with the Executive Directors, staff and relatives focused in part on the current environment. The interviewees brought their hopes for the future environment into the conversation. In addition, the staff spoke about their work and the relatives talked about their relationship to their family member, including their sense of loss. The main issues related to the TMU environment are given below.

- The sitting room was separate from the dining room necessitating staff to shepherd them into the dining room for meals and back again.
- There was a time pressure to have residents in the dining rooms at set times ready for the meals which were brought down from the centralized kitchens
- Staff work was characterized by routines and schedules
- The residents were seen to spend much time in the sitting room staring into space or sleeping
- Bedrooms were used as places to meet family members in order to obtain privacy
- The positioning of the chairs and cramped conditions made conversation with the residents awkward
- The staff came into the sitting room area to provide food and beverage and then left the area to continue their work in the private spaces of the unit
- Relatives spoke of biographical disruption and their loss of familiar patterns of relationship in familiar home surroundings and their loss of familiar joint occupations with their family member

10.3.3 Summary Conclusions: HMU Interview Data

There was general approval of the HMU environment by the Executive Directors, staff and residents. A summary of benefits is given below.

- The residents made more use of the open plan area and whilst they were there, they were more active and engaged with others
- The residents were able to see what was going on in the room and self-initiated movement and interaction
- The residents were able to participate in some domestic tasks
- There was better monitoring of residents, with the homemaker in the open plan area
- The homemaker and the unit kitchen allowed more person centred flexibility in providing for the needs of residents
- Staff felt under less time pressure with the flexibility of mealtimes enabled by the unit kitchen and the homemaker
- Staff work was more person centred, with residents choices and lifestyle being facilitated
- The new environment was more homelike and friendly
- The new environment facilitated relative communication with residents, staff and other relatives
- The dining tables and the informal grouped layout of the soft furnishings provided a sense of privacy and facilitated communicating with residents

10.4 LIMITATIONS

There are a number of limitations to this study.

- The residents were not interviewed to get their opinions about their environments. Residents range widely in their comprehension and in their ability to converse. Most residents would not be able to give detailed and precise information, necessitating the use of specialist techniques and training (Sloane et al., 2005) not available to the author.
- To a large extent the physical renovations determined the timing of this research project. Pre renovation observations had to be curtailed due to the early start of the renovations in NH1. In contrast, the planned renovations were delayed in NH2. This research was constrained by the need for residents, relatives and staff to become thoroughly familiar

with the new household environment and the day-to-day operational issues to be worked through and sorted. For these reasons, while NH2 had a six month gap between the pre and post renovation assessment, for NH1 this gap was closer to one year.

- There were different residents, staff and relatives from those observed in the TMU's. It was not feasible to exclude those that had not been in the TMU's. In addition, the gap between the TMU and HMU assessments meant that the cognition of some residents deteriorated. For statistical purposes the TMU and the HMU populations were considered to be completely different populations.
- It was not possible for this research study to find and analyze a matched control group of residents in separate traditional nursing homes where no environmental changes occurred.
- As the measurement tool and protocol were new, further studies are required to establish confidence in the assessment procedure and outcomes.
- There was an increase in staffing levels (homemaker) in the HMU compared to the TMU. In addition, some of the responsibilities of other posts had changed (household coordinator, nurse). The research dealt with these specific changes by defining them as being operational components of the HMU typology.
- This study did not have the capacity to administer extensive cognitive and behavioural tests to ensure that the TMU residents were equivalent to the HMU residents.
- The observational protocol described in the method above is labour intensive. This research was unable to determine the minimal number of days which are required to obtain a complete picture of comparative changes.
- Being observed may have had an effect on those within the room, including the avoidance of the room. Being observed may have affected resident, staff and relative behaviours.

That being said, it appeared that after a very short period of time people stopped paying attention to the observer and the actions carried on normally within the room.

- This study makes no attempt to judge the types of active occupation or social engagement as being good or bad. The underlying premise is that an increase in interactions and engagement is almost always a good outcome. For example, other assessments have been devised to the prevalence and effects of negative, agitated and aggressive social engagements and actions.
- Each renovation will have its own characteristics. This research focused on the specific components most relevant to the outcome measures. Defining distinctive characteristics of each type of environment allows matching of similar environments. Other factors, such as specific types of training, the local Health and Safety and Infection Control requirements, and specific managerial and operational policies, are important. These specific factors were excluded from this thesis study in order to give a comprehensive overview of the environmental factors which affected the outcome measures.
- Both nursing homes were in the same region in Ireland. However, it is unlikely that there would be some geographic, national or local effect which was responsible for the changes, but this cannot be entirely ruled out.
- The nursing homes were assessed only once pre renovation and post renovation. Further assessments would give greater confidence in the results and in the comparative baselines pre and post renovation. This research is based on only two nursing home environments. Including other nursing homes would give additional confidence in the results and would give greater detail about the multi-component typologies.
- In the development phase of the ATOSE, local occupational therapists reviewed the ATOSE. Their feedback was used to validate, generate or collapse the various different

components of the ATOSE. It would have been a more robust if occupational therapists with national and international reputations and working specifically with people with dementia in residential care were used (Delphi technique). This would ensure greater credibility of the ATOSE itself, while giving greater assurance that no conceivable areas of importance were missed in the coverage and method of the ATOSE and that it was relevant to purpose.

10.5 RECOMMENDATIONS FOR PROTOCOL IMPROVEMENTS ARISING FROM THIS STUDY

There are a number of ways that the research methods could be improved. Improvements to the protocol which could be considered for future research are:

- To embark on interviews with the residents. Consideration would have to be given as to whether to undertake the interviews before or after the observations, and whether or not the interviewer should be a different person than the observer, to prevent a contamination of relationship between the two roles
- To separate out the roles of the observer and of the interviewer for all relative and staff interviews and observations to prevent any possibility of bias.
- To develop a questionnaire which could be distributed to staff and relatives for additional quantitative data concerning their views of the environmental changes
- Removing infrequently used categories on the Assessment Tool for Observation and Social Engagement (ATOSE) in line with the discussion in Chapter 3
- To develop a random or stratified sampling strategy for obtaining staff and relatives for interview (Sommer & Sommer, 1997). This has implications for confidentiality and would need to be carried out in conjunction with the nursing home staff, as under

existing codes of practice a researcher does not have access to names of individuals unless they have already agreed to participate.

- To recruit additional interviews from staff and relatives associated with nursing homes which were more geographically dispersed and include those with a greater acquaintance with other alternative forms of provision of care for those with dementia, especially those who had experience with sheltered housing as an alternative to nursing homes.
- To undertake another observational period, say six months before the pre-renovation observations, to confirm or disprove the TMU baseline levels of interactive occupation and social engagement obtained in this study.
- To undertake another observational period, say six months after the post-renovation observations, to confirm or disprove the consistency of the HMU baseline levels of interactive occupation and social engagement obtained in this study.
- To widen the observational study to include other nursing homes, including those which are purpose built and which would still be classified as HMU's and those TMU's which are not considering redevelopment into HMU's.
- To widen the study to observe the results the observational assessment would have on people living in nursing homes who are not diagnosed with dementia.
- To build in an evaluation of other forms of residential care environments, including Small House Model units and sheltered accommodation units to compare with the results obtained in this thesis.

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APPENDICES

APPENDIX 1: Assessment Tool for Occupation and Social Engagement (ATOSE)
ASSESSMENT TOOL for OCCUPATION & SOCIAL ENGAGEMENT (ATOSE)

SEQUENCE NO: <input style="width: 30px; height: 20px;" type="text"/>	START OBS TIME <input style="width: 30px; height: 20px;" type="text"/>	DATE of OBS <input style="width: 30px; height: 20px;" type="text"/>
RESIDENTS	VISITORS	STAFF

Active Social Engagement

x R.	<input type="checkbox"/>
x V.	<input type="checkbox"/>
x S.	<input type="checkbox"/>
mixed	<input type="checkbox"/>
non-verbal	<input type="checkbox"/>
Welcome	<input type="checkbox"/>

Social Engagement

x R.	<input type="checkbox"/>
x V.	<input type="checkbox"/>
x S.	<input type="checkbox"/>
mixed	<input type="checkbox"/>
non-verbal	<input type="checkbox"/>
Welcome	<input type="checkbox"/>

Social Engagement

x R.	<input type="checkbox"/>
x V.	<input type="checkbox"/>
x S.	<input type="checkbox"/>
mixed	<input type="checkbox"/>
non-verbal	<input type="checkbox"/>
Welcome	<input type="checkbox"/>

Activity

kit. / dom. - I.	<input type="checkbox"/>
kit. / dom. - R.	<input type="checkbox"/>
kit. / dom. - V.	<input type="checkbox"/>
kit. / dom. - S.	<input type="checkbox"/>
rec. - I.	<input type="checkbox"/>
rec. - R.	<input type="checkbox"/>
rec. - V.	<input type="checkbox"/>
rec. - S.	<input type="checkbox"/>
rec. group - I.	<input type="checkbox"/>
rec. group - R.	<input type="checkbox"/>
rec. group - V.	<input type="checkbox"/>
rec. group - S.	<input type="checkbox"/>

Activity

kit. / dom. - I.	<input type="checkbox"/>
kit. / dom. - R.	<input type="checkbox"/>
kit. / dom. - V.	<input type="checkbox"/>
kit. / dom. - S.	<input type="checkbox"/>
rec. - I.	<input type="checkbox"/>
rec. - R.	<input type="checkbox"/>
Rec. - V.	<input type="checkbox"/>
rec. - S.	<input type="checkbox"/>
rec. group - I.	<input type="checkbox"/>
rec. group - R.	<input type="checkbox"/>
rec. group - V.	<input type="checkbox"/>
rec. group - S.	<input type="checkbox"/>

Activity

kit. / dom. - I.	<input type="checkbox"/>
kit. / dom. - R.	<input type="checkbox"/>
kit. / dom. - V.	<input type="checkbox"/>
kit. / dom. - S.	<input type="checkbox"/>
rec. - I.	<input type="checkbox"/>
rec. - R.	<input type="checkbox"/>
rec. - V.	<input type="checkbox"/>
rec. - S.	<input type="checkbox"/>
rec. group - I.	<input type="checkbox"/>
rec. group - R.	<input type="checkbox"/>
rec. group - V.	<input type="checkbox"/>
rec. group - S.	<input type="checkbox"/>

Passive Engagement with Surroundings

non / A.	<input type="checkbox"/>
----------	--------------------------

Passive Engagement with Surroundings

non / A.	<input type="checkbox"/>
----------	--------------------------

Passive Engagement with Surroundings

non / A.	<input type="checkbox"/>
----------	--------------------------

Receiving Care

P. Care	<input type="checkbox"/>
Prof. care	<input type="checkbox"/>

Care tasks

P.care - R.	<input type="checkbox"/>
Other	<input type="checkbox"/>

Care tasks

P.care - R.	<input type="checkbox"/>
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Passive / Agitated Behaviours

eyes closed	<input type="checkbox"/>
agitated	<input type="checkbox"/>
self-stimulation	<input type="checkbox"/>

Partnership

meal / snack	<input type="checkbox"/>
--------------	--------------------------

Work tasks

prof. tasks	<input type="checkbox"/>
dom.	<input type="checkbox"/>
cater.	<input type="checkbox"/>

APPENDIX 2: Observational Criteria

OBSERVATION ASSESSMENT MARKING CRITERIA

The main objective of this assessment tool is to assess / monitor the level of activity within a particular physical environment / room.

The protocol is as follows:

SOCIAL ENGAGEMENT

Description: people are actively and purposefully communicating with each other. This is usually verbal, but may be non-verbal. A non-verbal communication may be holding hands with another person, giving a cuddle, kiss, etc.

Definition codes.

xR. = communication with a resident

xV. = communication with a relative

xS. = communication with a staff member

Mixed = communicating with more than one category of the above (if talking to a resident and a staff member it would be mixed. If talking to 2 people in the resident category, this would be defined as xR)

Non-verbal = specific non-verbal communication, such as embrace or physical contact over a long or short period of time.

Welcome = a specific hospitable gesture over and above the usual rota and routines. (an offer to make a cup of tea to a relative as opposed to providing a visitor with a cup of tea from the communal trolley at tea time).

ACTIVITY (INTERACTIVE OCCUPATION)

Description: people actively (doing) engaged in an activity or occupation. This activity can be recreational, but not exclusively. Work tasks are recorded elsewhere.

Definition codes.

Kit./dom. - I. = any domestic or housekeeping task done independently by an individual.

Kit./dom. - R. = any domestic or housekeeping task done with one or more residents

Kit./dom. - V. = any domestic or housekeeping task done with one or more visitors

Kit./dom. - S. = any domestic or housekeeping task done with one or more staff members

Rec. - I. = any activity, usually, but not exclusively, recreational, done by oneself

Rec. - R. = any activity done with one or more residents

Rec. - V. = any activity done with one or more visitors

Rec. - S. = any activity done with one or more staff members

Rec. group - I. = individually leading a group / activity

Rec. group - R. = participating in a group / activity lead by a resident(s)

Rec. group - V. = participating in a group / activity lead by a visitor(s)

Rec. group - S. = participating in a group / activity lead by a staff member(s)

PASSIVE ENGAGEMENT WITH SURROUNDINGS

Non / A - non active. May be observing what is going on within the room or daydreaming, but showing no physical, social or emotional participation.

These next sections do not apply to all population domains.

RECEIVING CARE (domain: Residents)

P. care = receipt of personal care, such as, adjustments to clothes, grooming, toileting, eating and drinking. Receipt of professional care, such as mobilization and medication.

Prof. care = receipt of specific professional care, such as medication, medical observations, individual treatments (including exercise, mobilization), hairdressing.

PASSIVE / AGITATED BEHAVIOURS (domain: Residents)

Eyes closed – non-attentive behaviour (such as dozing, sleeping)

Agitated = agitated behaviour (such as vocalizing, pacing)

Self-stimulation = self-stimulation behaviour (such as rocking)

CARE TASKS (domain: Relatives)

P. care – R. = passive provision of personal care to a resident, such as, adjustments to clothes, grooming, toileting, eating and drinking.

Other = provision of care other than above. The category has been left flexible, as this category may be infrequent and difficult to categorize (for example, assisting with mobilization, assisting with dispensing from the tea trolley).

Formal communication = this form of communication is purposeful in intent. It can include written documentation. It may have to do with report information exchange of care or other issues, planning social activities / events, or household / administrative matters.

Parallel Occupation = participating in a meal with resident(s). It changes the dynamics of the relationship between the residence and the visitors. This identifies the inclusiveness and partnership of the residence and their investment in the maintenance of family relationship.

CARE TASKS (domain: Staff)

P. care – R. = passive provision of personal care to a resident, such as, adjustments to clothes, grooming, toileting, eating and drinking.

WORK TASKS (domain: Staff)

Prof. tasks = (Specific professional tasks), such as administration, providing medication, medical observations, individual treatments (including exercise, mobilization), hairdressing. This will include communication and planning for care management, social events or other. This does not include most direct work with residents or visitors, which is categorized separately.

Dom. = general domestic environmental cleaning duties and household maintenance.

Cater. = routine and general (non therapeutic) catering, including tea trolley, setting tables, preparation of food.

TIME SCORING

There may be periods of time where the observer interacts with residents, staff or visitors in the room or may need to leave the room or may need to halt the recording for any reason. The reason for the cessation should be noted on the reverse of the form before and after the interruption, if possible, and then the recording continued at the next suitable scheduled intervention point.

NARRATIVE ANALYSIS

The backs of the sheets can be used to draw a rough plan of the room, placing symbols for the occupants (R for resident, S for staff, V for visitor). Standardized symbols can be used, for example, a square for sitting and circle for standing, with an arrow for the direction of movement and a double arrow for social engagement between two people. A large box with a written number denoting residents, staff or visitors, can be a suitable short-hand indicator for a group. Putting in a few sentences to describe the atmosphere, ambiance and general activities of the room will assist in developing the crucial task of interpreting the functioning of the room. Drawing daily time lines with the most important events in the room will give a sense of how the environment functions. Other symbols can be given to denote the sex of the residents, whether they are immobile, and so on for clarification and interpretation.

SCHEDULING

It is important to keep to the schedules as agreed by the nursing home, so that staff, relatives and residents are aware when the observations will be done. Notification should be given to next of kin well in advance of the observations, with a clear indication of the purpose of the research. Photographs of the observer/s included in this letter are helpful to decrease any unnecessary anxiety through lack of familiarity. These sheets can also be given out, with personal photograph included, when residents or visitors enter the room. They can be invited to see how the room is marked and to discuss any confidentiality or consent issues.

It is recommended not to observe and document for more than two hours and to have a suitable one or two hour gap before restarting as an aid to concentration and accuracy.

CONSENT

For people with dementia, process consent is to be preferred over gaining consent from relatives. Process consent places the obligation on the observers to explain what they are doing to the residents in the room and ask their permission on an ongoing basis. If the residents become anxious or concerned about the observation or the observers, the observation is then discontinued until the anxiety can be alleviated. It is good practice to inform the next of kin, in terms of any issues they may have that would need addressing and in order that they are suitably informed if they visit during an observational period.

Consent from the residential home and management and staff is obtained locally. Providing written information, photographs of the observers and attending staff meetings can provide clarity of purpose and decrease anxiety.

INTER-RATER PROTOCOL

Having two observers allows for inter-rater reliability statistics and confidence in recording. If this is done at the first session, it allows greater freedom for the observers to introduce themselves to the residents, staff, and visitors in the room, or who will enter the room, in order to decrease any anxieties attached to the observers and to demonstrate that the process remains without names for confidentiality concerns. This is good professional practice. However, as the persons within the room are moving and changing activity categories, sometimes rapidly, it is important that one of the observers becomes a 'pointer', going around the room to signal which person is being observed, allowing time for both observers to notate, and then moving onto the next person to be observed, until the room is complete. The other observer can be in charge of the time, signaling when to start the observations.

It is useful for two observers to work together on a number of trial runs in order to clarify together how to categorize various behaviours as they come up in order to obtain the most accurate categorizations and in order to build up confidence, speed and accuracy. Because there is discussion and verbal agreement, these trials do not constitute inter-rater reliability, but are the building blocks for the research itself and any inter-rater reliability observations that may be included.

OBSERVATIONAL STANDPOINT

Residents, staff or visitors may wish to interact with the observers, and it may be difficult, or even rude, not to do so. However, once the people in the room are familiar with the observers and any anxieties have been dealt with, it is important that the observers retire into the background so that they are not recording any activity or social interaction which is a direct consequence of them being in the room, as this will give a false sense of what happens in the room on a daily basis.

EXAMPLES FOR ADDITIONAL CLARIFICATION

1. If a resident spills a drink on the floor and the visitor cleans this up, this is categorized as being a domestic activity as the purpose of the activity is to clean the floor, as opposed to self and personal care, as there is no physical contact, such as touch, with the resident.
2. When a visitor is having a cup of tea, and is not socially interacting (for example, watching the completion of a resident activity group), they will be categorized being in the rec. - I. category. But when the visitor is not actively drinking the cup of tea, they are then categorized in the passive engagement (non. / A.) category.
3. Whenever staff converse with residents it could be said they are undertaking a therapeutic or professional task. From the resident's point of view, these interactions could be seen to more clearly address their social needs. For these observations these interactions will be classified as being active social engagement, in order to record resident quality of life, rather than professional interactions.

Appendix 3: Information Letters, Notification Letters, Consent

The contents of Appendix 3 include the original information letter to the relatives to inform them about the research study, its aims and to request that a member of the family agree to be interviewed.

Also included is the notification letter which was put on the door to the communal sitting room notifying relatives and staff that the room was being used for research.



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Information Letter Relatives (pre renovation)

An Assessment of the Castleross Nursing and Retirement Village Building Renovations

My name is Mark Brown. I am a Senior Occupational Therapist working in Cavan General Hospital with people with dementia. I am doing some research evaluating residential homes for people with dementia.

Castleross Nursing and Retirement Village is planning structural renovations which they hope will make a positive difference in the care of its residents. My study will consider if the new environment is better for Woodlands Unit residents. I hope to be able to publish the results in professional journals and at professional conferences.

Your participation is important to me as I want to talk to a wide variety of staff to get a variety of opinions. Every staff opinion is unique and important.

I will also ask you to answer a few simple tick box questions.

The whole interview will last between one-half hour and three-quarters of an hour. It will be at Castleross on Friday 29 May and Friday 5 June.

It is important to me that your identity remains confidential.

I would like to take a recording of our talk. This helps me concentrate on what you are saying, rather than having to write everything down. It means that I can go back to the recording to make sure I don't lose any information and that everything I write is correct. Only myself and another researcher will ever hear our recorded conversation. All recordings will be kept under lock and key.

The questionnaire that you fill in and tick will also be confidential and kept under lock and key.

I will write up the results to give to professional journals and to people working with dementia. No names will ever be used, so no one will know what you, personally, have said.

The renovations will take part in two stages. I will ask you after each stage if you would be willing again to answer the same questions in order to compare your 'before and after' views. This will give information about whether the renovations have been successful.

However, if you do not want to be part of this study, this will not affect you in any way.

If you do decide to participate and, for whatever reason, you wish to stop the interview or have the recording device turned off, you may do so at any time without needing to give a reason and knowing that this decision will not affect you in any way.

There is a consent form attached to this letter for your information. I will ask you to fill one of these in when we meet, or you can bring this with you when we meet.

If you are willing to participate, please fill in the permission form and give it to Ailish Keenan, Care Manager or let her know and she can agree a time with you.

Permission to do this research has been granted by Paul McCoy, Castleross Nursing and Retirement Village, and the Dublin Northeast HSE Research Ethics Committee.

You can get more information, or answers to your questions about the study, your participation in the study, and your rights from:

Mark Brown, Senior Occupational Therapist (researcher)

Assessment and Rehabilitation Unit for the Elderly

Cavan General Hospital, Cavan

Tel: 049 437 6031

Or, if you want to ask a question from someone else who is not doing the research, you can contact:

Ailish Keenan, Care Manager, Woodlands Unit

Thank you for your consideration,

Mark Brown





Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

An Assessment of the Castleross Nursing and Retirement Village Building Renovations

My name is Mark Brown. I am a Senior Occupational Therapist working in Cavan General Hospital with people with dementia. I am doing some research which I hope will improve residential homes for people with dementia.

Castleross Nursing and Retirement Village is planning structural renovations which they hope will make a positive difference in the care of its residents. My study will consider if the new environment is better for Woodlands Unit residents. I hope to be able to publish the results in professional journals and at professional conferences.

Your participation is important to me as I want to talk to a wide variety of people to get a variety of opinions.

You can tell me if you think this building is a good building for people with dementia. We will talk about things that you notice about the building when you come to visit. Your opinions and experience of this building are very important.

I will also ask you to answer a few simple tick box questions.

The whole interview will last between one-half and three-quarters of an hour. It will be at Castleross and can be either on Friday 22 May or Friday 5 June.

As everyone's view is important, all adult visitors paying a personal visit to the Woodlands Unit in a two week period, and all the main carers, will be invited to participate.

It is important to me that your identity remains confidential.

I would like to take a recording of our talk. This helps me concentrate on what you are saying, rather than having to write everything down. It means that I can go back to the recording to make sure I don't lose any information and that everything I write is correct. Only myself and another researcher will ever hear our recorded conversation. All recordings will be kept under lock and key.

The questionnaire that you fill in and tick will also be confidential and kept under lock and key.

I will write up the results to give to professional journals and to people working with dementia. No names will ever be used, so no one will know what you, personally, have said. No one working at Castleross will know what any individual has said.

The renovations will take part in two stages. I will ask you after each stage if you would be willing again to answer the same questions in order to compare your 'before and after' views. This will give information about whether the renovations have been successful.

However, if you do not want to be part of this study, this will not affect you in any way.

If you do decide to participate and, for whatever reason, you wish to stop the interview or have the recording device turned off, you may do so at any time without needing to give a reason and knowing that this decision will not affect you in any way.

If you are willing to participate, please write your name, address and telephone number on the attached permission form and send or give it to Ailish Keenan, Care Manager, Woodlands Unit, Castleross Nursing and Retirement Village, Carrickmacross.

There is a consent form attached to this letter for your information. I will ask you to fill one of these in when we meet, or you can bring this with you when we meet.

Permission to do this research has been granted by Paul McCoy, Castleross Nursing and Retirement Village, and the Dublin Northeast HSE Research Ethics Committee.

You can get more information, or answers to your questions about the study, your participation in the study, and your rights from:

Mark Brown, Senior Occupational Therapist (researcher)
Assessment and Rehabilitation Unit for the Elderly
Cavan General Hospital, Cavan
Tel: 049 437 6031

Or, if you want to ask a question from someone else who is not doing the research, you can contact:

Ailish Keenan, Care Manager, Woodlands Unit
Castleross Nursing and Retirement Village
Carrickmacross
Tel: 042 969 2630

Thank you for your consideration,

Mark Brown





Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Information Letter Relatives (post renovation)

An Assessment of the Castleross Nursing & Convalescent Centre Building Renovations

We are sending this letter to inform you that Mark Brown is undertaking the second part of his PhD research project at Woodlands in March and April. Many of you will have met him when he was here in spring of 2009.

For those that don't know him, Mark is a Senior Occupational Therapist working in Cavan General Hospital with people with dementia. The research he is doing will help to evaluate the recent changes that have been made in Woodlands. He hopes to be able to publish the results in professional journals and at professional conferences to allow others to learn from the innovations undertaken at Woodlands.

Mark will be observing how residents, staff and visitors use the main sitting room and kitchen areas of Woodlands on various days from June 18 to July 20. He will be sitting quietly in a corner of the room, recording the activity in the room every five minutes. This will be compared to the activity he measured in the main Woodlands sitting room before the renovations.

If you run into Mark and are interested in what he is doing, Mark would be delighted to talk to you and to show you how he is recording his observations.

Some relatives very kindly gave of their time to fill in Mark's questionnaires and were also interviewed. We will be in contact to ask whether or not they will be willing to be seen again, so Mark can compare their thoughts and opinions before and after the renovations.

Permission to do this research has been granted by Paul McCoy, Castleross Nursing & Convalescent Centre and the Dublin Northeast HSE Research Ethics Committee.

You can get more information, or answers to your questions about the study from:

Mark Brown, Senior Occupational Therapist (researcher)

Assessment and Rehabilitation Unit for the Elderly

Cavan General Hospital, Cavan

Tel: 049 437 6031

Or, if you want to ask a question from someone else who is not doing the research, you can contact:

Ailish Keenan, Director of Care, Woodlands House

Castleross Nursing and Retirement Village

Carrickmacross

Tel: 042 969 2630

Mark Brown





Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Information Letter Staff (post renovation)

An Assessment of the Castleross Nursing & Convalescent Centre Building Renovations

Many of you will remember the researcher, Mark Brown. He is undertaking the second part of his PhD research project at Woodlands in March and April. Many of you will have met him when he was here in spring of 2009.

For those that don't know him, Mark is a Senior Occupational Therapist working in Cavan General Hospital with people with dementia. The research he is doing will help to evaluate the recent changes that have been made in Woodlands. He hopes to be able to publish the results in professional journals and at professional conferences to allow others to learn from the innovations undertaken at Castleross.

Mark will be observing how residents, staff and visitors use the main sitting room and kitchen areas of Woodlands on various days from June 18 to July 20. He will be sitting quietly in a corner of the room, recording the activity in the room every five minutes. This will be compared to the activity he measured in the main Woodlands sitting room before the renovations.

If you run into Mark and are interested in what he is doing, Mark would be delighted to talk to you and to show you how he is recording his observations.

Some staff very kindly agreed to fill in Mark's questionnaires and were also interviewed. We will be in contact soon to ask whether or not they will be willing to be seen again, so Mark can compare their thoughts and opinions before and after the renovations.

Permission to do this research has been granted by Paul McCoy, Castleross Nursing and Convalescent Centre and the Dublin Northeast HSE Research Ethics Committee.

You can get more information, or answers to your questions about the study from:

Mark Brown, Senior Occupational Therapist (researcher)

Assessment and Rehabilitation Unit for the Elderly

Cavan General Hospital, Cavan

Tel: 049 437 6031

Or, if you want to ask a question from someone else who is not doing the research, you can contact:

Ailish Keenan, Director of Care, Woodlands House

Castleross Nursing and Retirement Village

Carrickmacross

Tel: 042 969 2630

Mark Brown



Notice for Entrances to Nursing Home and to Communal Sitting Area

You are most probably already aware that Castleross is undertaking some renovations that we anticipate will make this nursing home even better for its residents and that we have a researcher, Mark Brown, who is evaluating these changes for us.

Mark and his assistant, Dympna, will be monitoring the activity in our main sitting area during the first two weeks of May. They will be recording all the people who come into the room, where they sit, and what they do. However, they will not be recording anyone's name. And they will not be recording what people say or any other confidential information.

We hope that this will not be inconvenient to you. It is their intention that their presence doesn't alter the normal activities in the room in any way.

You are very welcome to meet them, to ask them questions, and to look at what they are doing.

You can also ask a staff member about the project and they can give you more information or put you in touch with someone who can.



Letter to Relatives: Consent to Contact

Research Title: An Assessment of the Castleross Nursing and Retirement Village Building Renovations at the Woodlands Unit.

Permission to Interview

Name: _____

Address: _____

Telephone: _____

Best time of day to be telephoned _____

Best time for interview (please circle as many times as are convenient for you.)

Friday 22 May afternoon or early evening

Friday 5 June afternoon or early evening

CONSENT FORM

This Consent Form is designed to check that you understand the purposes of the study, that you are aware of your rights as a participant, and to confirm that you are willing to take part.

Please tick as appropriate

No Yes

	I have read the information letter describing the study		
	I have received sufficient information about the study for me to decide whether to take part		
	I understand that I am free to refuse to take part if I wish		
	I understand that I may withdraw from the study at any time without having to give a reason		
	I understand that the interviews will be recorded and I give permission for that to be done		
	I understand that I may instruct the recording to be stopped at any time without having to give a reason		
	I am aware that I can ask for further information about the study from the researcher.		
	I understand that all information arising from the study will be treated as confidential		
	I am aware that it will not be possible to identify any individual participant in the study, including myself.		
	I am aware that the results may be published in professional journals, and used for teaching purposes, and I give my consent to this, always accepting that anonymity is preserved.		
	I agree to take part in the study.		

Signature	Date	
Name (in block letters please)		

I confirm that quotations from the interview can be used in the final research report and other publications or professional meetings. I understand that the information will be used anonymously and that no individual participant will be identified in such report.

Signature	Date	
Name (in block letters please)		

Declaration of Researcher

I have explained the study, have answered any questions, and feel that the participant understands and is freely giving consent.

Signature

Date

Keep the original of this form in the investigator's file and give one copy to the participant

