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REBECCA ROLLINSON

BA (HONS) IN PSYCHOLOGY

Understanding the factors that influence the provision of

1:1 care in residential homes for older adults:

An application of the theory of planned behaviour.

DISSERTATION SUBMITTED IN PART FULFILMENT OF THE REQUIREMENTS OF

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Abstract

Objectives

To use the theory of planned behaviour to explore the factors affecting the decision of professional carers to provide 1:1 care in residential homes for older adults.

Design

A cross sectional survey design was used to assess 102 carers in 17 residential homes. A small sample returned a repeat assessment allowing a longitudinal examination of the relationship between intention and actual behaviour.

Methods

A questionnaire was written in accordance with the theory of planned behaviour guidelines and developed through interviews with carers. Standardised questionnaires were used to assess resident ability, perceived involvement in decision making and the extent to which the homes were resident or institution focused.

Results

On average, carers intended to spend 27 to 45 minutes per shift providing 1:1 care. Perceived behavioural control was the strongest predictor of intention (accounting for 34% of the variance). Low resident ability level correlated with low perceived behavioural control and predicted a lower intention to provide 1:1 care. Perceived involvement correlated with perceived behavioural control but was not predictive of intention. Past behaviour retained predictive ability once the theory of planned behaviour components were accounted for.

Conclusions

Residential carers perceive factors within the resident and the organisation as barriers to 1:1 care. Carers may be less likely to provide 1:1 care to residents with lower ability levels, although methodological limitations restrict the conclusions that can be drawn. Future research could usefully consider the potentially habitual nature of 1:1 care.

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Section One: Introduction

This study is concerned with the provision of individualised care approaches in residential settings for older adults. In particular, it uses the theory of planned behaviour as a framework to examine the decision making process used by staff when choosing whether or not to spend time providing 1:1 care to an individual resident.

This introduction is structured into the following six sections;

1. The wider social and political context
2. The development of individualised care approaches
3. Factors that may affect the provision of individualised care
4. Introduction to the theory of planned behaviour
5. Rationale for the current study and,
6. Research questions and hypotheses.

Definition of key terms

- The term '**older adults**' refers to adults aged 65 years and over.
- '**Residential care setting**' refer to a facility located in the community that provides permanent residential placements to older adults.
- The definition of '**individualised care**' will be explored within the body of the report. In general, it is used as an umbrella term to refer to a range of practices that prioritise the needs of the individual resident.
- The definition of '**1:1 care**' was developed specifically for this study, and will be reported on in the Method section.

1.1 Social, political and organisational context

Britain's population is growing older. The recent National Service Framework (NSF) for Older People (DoH, 2001) reported that the number of people over 65 had doubled in the last 70 years and predicted that the number over 90 would double in the next 25 years. There is also a higher prevalence of physical illness and dementia in this older age group. For instance, dementia affects 5% of the population aged 65 and over, 20% of those aged 80 and over. The NSF (DoH, 2001) estimated that the number of people with dementia will double in the next 50 years.

Traditionally, older people with physical and mental health problems were often cared for in hospitals. The last two decades have seen government policies encourage a reduction in the number of long stay NHS beds available to the elderly and a move to increase the number of people cared for within the community (DoH, NSF for older people, 2001; HMSO, Community Care Act, 1990; Neville et al, 1995). Currently, the main community alternatives to hospital admissions for older people with physical and mental health difficulties, are increased support within their own home, or a residential or nursing home placement (Wood, 1993).

A recent Kings Fund report (Kings Fund, 2001) highlighted the low levels of pay, support and qualification of community carers. As the demands placed upon these carers increases, there is growing concern that they are not sufficiently resourced to maintain the quality of care required (Campbell-Stern, Jagger & Clarke et al, 1993; Neville et al, 1995).

It is therefore of importance to the well being of both staff and residents to examine the quality of care provision within this setting. First though, the following section will consider the care approaches that have arisen within this political climate.

1.2 Developments in care approaches

This section considers the transition from institution to resident-oriented care, the particular approach of person-centred care, and evidence for the effectiveness and prevalence of related care approaches.

1.2.1 Resident- vs. Institution-oriented care

The term ‘institution-oriented’ care refers to the prioritisation of the organisation’s needs over the patient’s as typified by traditional hospital care (Goffman, 1961). In contrast, resident-oriented care typically involves the provision of choice, more positive interactions and a greater consideration of patients’ individual needs.

As the bulk of long term care was transferred to community settings (HMSO, Community Care Act, 1990) it was hoped that a reduction in institution-oriented care practices would ensue. Indeed, observational studies have generally reported more resident-oriented (and therefore better quality) care within community settings (Bond and Bond, 1990; Clark and Bowling, 1989; Shepherd, Muijen, Dean and Conney, 1995; Wills and Leff, 1996; Wills, Trieman and Leff, 1998).

However studies suggest a need for further improvement, reporting relatively low interaction levels in both community and institutional contexts (Clark and Bowling,

1989; Philp, Mutch, Ballinger and Boyd, 1991; Sinclair, 1988). Many of the earlier studies indicating improved practices may also have been confounded by the initial relocation of the more able residents into community settings (Wills et al, 1998).

1.2.2 Person-centred care

Kitwood (1989, 1990, 1993, 1997) pioneered for the development of quality care for older adults. He outlined a theory of dementia that challenged the medical model of linear neurological impairment, suggesting instead that the individual's social environment has a reciprocal interaction with their neurological impairment.

Kitwood (1989) proposed that a person with dementia needs their carer to facilitate their communicative expression as they lack the necessary neurological resources to complete the act independently. In doing so, the carer is providing them with a place in a social world and thereby with the essence of what it is to be a person. With no sense of personhood, Kitwood argues, people with dementia withdraw into themselves, speeding their degeneration.

Kitwood (1993) outlines the typical interpersonal distancing that people adopt towards those with dementia; infantilising, labelling or invalidating them and thereby furthering their withdrawal, dependence and deterioration - an interaction style that, he argued, typified the 'institution-oriented' care of large hospitals. He acknowledges the challenge for carers in recognising the personhood of the person with dementia. He referred to the many other pressures facing carers, the traditional perception of dementia as destroying the person and, significantly, the need to defend against the

anxiety generated by close contact with mortality and distress (Menzies, 1959; Zagier Roberts, 1994), as barriers to person-centred care (Kitwood, 1993).

The essence of Kitwood's person-centred care approach is therefore the recognition and facilitation of individual needs. Some of the care practices and principles central to it are outlined in Figure 1.1 (Kitwood, 1997).

Figure 1.1 Essential aspects of person-centred care

Recognition	Acknowledging the older adult as a person e.g., direct eye contact.
Negotiation	Consulting about preferences, desires and needs. Providing some degree of choice and control.
Collaboration	Working together to reduce the passivity of the resident.
Play	Spontaneous and goal-less expression.
Timalation	Primarily sensuous interaction. e.g. massage.
Celebration	Sharing a joyful mood.
Relaxation	Facilitating relaxation in the resident. e.g. staying nearby
Validation	Acknowledging the reality of a person's emotions and feelings.
Holding	Providing a safe psychological environment where the person can cope with the vulnerability of expressing and experiencing 'destructive' emotions.
Facilitation	Enabling a person to do something they otherwise couldn't do.

The following section will consider evidence for the effectiveness of care practices that embody many of the principles of person-centred care, while not necessarily being explicitly based upon Kitwood's theorising. These care practices will be subsumed for the purposes of this study, under the heading of 'individualised care'.

Many of the practices in Figure 1.1 are difficult to accurately observe. In the following review therefore, interaction levels tend to be used as a tangible indicator of an individualised care approach in practice.

1.2.3 Evidence of effectiveness of 'individualised care'.

This section will critically review research evidence for the effectiveness of individualised care approaches in relation to first residents and then staff and finally in relation to the clinical management of challenging behaviour.

- Resident outcomes

Several studies have used a longitudinal design to assess the impact of an individualised care approach. Brane, Karlsson, Kihlgren and Norberg (1989) for instance, found that in comparison to a control group, residents showed less confusion, anxiety and depression and increased levels of a bio-chemical marker typically reduced in dementia, following carer training in integrity promoting care. Furthermore, these improvements were maintained at nine months. It should be noted however, that the raters were not blind to the nature of the study.

The 'Domus philosophy' (Dean, Briggs and Lindsay, 1993) is an approach to residential care that shares many principles with person-centred care. A longitudinal analysis of residents moving from a hospital ward to a Domus environment found that within three months of transition, residents had significantly reduced Organic Brain Syndrome questionnaire scores, significant increases in communication ability and no deterioration in adaptive behaviours (Dean, Briggs and Lindsay, 1993).

Bowie and Mountain (1997) did not use a longitudinal design, but observed significantly less abnormal motor activity and inappropriate behaviour in elderly

residents on resident-oriented wards (defined by high staff-resident interactions) compared to those on institution-oriented wards.

Other research has reported evidence of resident benefits following care practices such as reminiscence therapy and snoezelen (Finnema, Droes, Ribbe and Tilburg, 2000). While these approaches are not necessarily founded on Kitwood's person-centred approach, their success is attributed to the increased emotional contact with residents' individual needs that these practices promote (Droes, 1997; Achtberg, Kok and Salentijn, 1997).

- Staff outcomes

In consideration of the potential emotional costs of increased identification with residents (Kitwood, 1997; Zagier Roberts, 1994) studies addressing the impact of individualised care approaches in professional carers are reviewed.

Shepherd, Muijen, Dean & Cooney (1995) surveyed 20 residential homes for a variety of client groups, and found that *lower* levels of staff distress correlated with more *negative* staff-resident interactions. The authors suggest the possibility that engaging positively with residents may be associated with distress in staff.

Other research has not consistently supported this suggestion however. For instance, Jenkins and Allen (1998) found that residential care staff reporting high levels of personal accomplishment (an indicator of low emotional strain) were observed to interact more with residents.

Studies examining the impact of training in individualised care have also reported beneficial effects for care staff. Moniz-Cook, Agar, & Silver, et al (1998), for instance, reported an increased perceived ability to cope with behavioural disturbance, despite no significant changes occurring in residents' behaviour. Hallberg and Norberg (1993) found ward staff developed a more positive perception of their patients and their own ability to cope following training, in comparison to a control group. Furthermore, Berg, Hansson and Hallberg (1994) found a significant reduction in levels of reported tedium and burnout in staff receiving training, compared to controls.

- Managing challenging behaviour

A common cause for referral to specialist mental health services is 'challenging behaviour' that cannot be managed within the residential setting (Jackson, Templeton and Whyte, 1999; Steele, Rouner, Chase and Folstein, 1990). A functional analytic approach has good evidence for effectiveness in this setting (Moniz-Cook, Woods and Richards, 2001) and essentially aims to understand the resident's perspective of their situation, establish the 'function' of their actions and find a more adaptive means of meeting the identified need.

Carers providing individualised care are more likely to understand the resident's expressive tendencies and emotional needs. This understanding could help prevent challenging behaviours from arising and help clarify their function, thereby minimising the specialist input required (Stokes, 1996).

1.2.4 Evidence of prevalence of individualised care

With research evidence suggesting the effectiveness of individualised care, observational studies examining its actual prevalence in wards and community residential settings are now considered.

Regarding interaction levels in hospital ward environments, Brooker and Mulvaney (1995) found that staff spent an average of 26% of their time¹ engaged with patients, while Salmon (1993) found that only 2% of nurses' interactions with patients were *not* directly related to physical care or a formal activity period. Similarly, Bowie and Mountain (1997) found that 87% of a patient's typical day was spent in purposeless motor activity, inappropriate behaviour or doing nothing. Taken together, these findings indicate low levels of staff-resident interaction in a hospital ward setting.

Turning to interaction levels in community settings, Bond and Bond (1990) found that only 9% of a resident's time was typically spent in verbal contact with a member of staff and this was usually restricted to the provision of choice in their personal care. Similarly, Clark and Bowling (1989) found conversations between staff and residents occurred in 3-11% of the sessions observed and was largely restricted to instruction.

More recently however, Jenkins and Allen (1998) found that 21.5% of residents' afternoons was *not* spent interacting with staff in a community setting. This figure perhaps represents a more reasonable level of engagement.

¹ It should be noted with all these studies that observations occur throughout daytime hours, therefore the percentage of time indicated will refer to percentage of daytime hours.

Summary of section 1.2

Within a context of de-institutionalisation, person-centred, or individualised, care has emerged as an influential theoretical approach to the care of older adults. Research evidence suggests it offers substantial benefits to residents, holds potential benefits for staff and is of clinical significance, but that it is not widely provided in residential settings.

1.3 Research into the factors affecting the provision of 1:1 care

In order to better understand the possible barriers to the provision of individualised care, studies examining the factors that may be associated with its provision will now be reviewed. Due to the limited literature available, studies in both hospital and community settings are considered.

- *Job satisfaction*

Robertson, Gilloran and McGlew et al (1995) carried out detailed observations of care staff interactions with elderly patients on hospital wards. They found that wards with high job satisfaction ratings provided more individualised care.

- *Staff burnout and well being*

Jenkins and Allen (1998) found that residential carers high in feelings of personal accomplishment showed more positive staff-resident interactions than those who were more 'burnt out' (that is, emotionally strained by and detached from their care work). Conclusions cannot be drawn regarding the cause and effect relationships however.

- *Staff attitudes to the elderly.*

The literature on staff attitudes documents many instances of negative staff attitudes towards elderly clients (e.g. Kahana, Kinney & Kercher et al, 1996; Kosberg, 1983). Other authors (Baillon, Scothern, Neville and Boyle, 1996; Chandler, Rachel and Kazelskis, 1986; Robb, 1979) have reported highly positive attitudes in nurses and residential carers however.

Regarding the association of attitude to care behaviour, Kahana and Kiyak (1984) found that staff attitudes accounted for 39% of the variance in observed care behaviour in nursing homes for older adults. However, in an uncontrolled study, Salmon (1993) found that nurses' attitudes towards psychogeriatric ward patients were not predictive of their observed interaction levels.

Studies assessing *intention* to interact are similarly mixed in their findings. Fineman (1994) reported that negative attitudes shaped medical staff's expectations of their patients and their interactions with them, while Robb (1979) found no association between nursing students' attitudes to the elderly and their intention to provide quality nursing care.

The contradictory findings and methodological difficulties in this area make it hard to draw any conclusions regarding the association between attitude and individualised care practices.

- *Managerial approach*

Longitudinal studies reporting increased staff-resident interaction levels on transition from ward to Domus environments (Lindesay et al, 1991) suggest that a more person-centred management style has a positive association with interaction levels, although they have been unable to study the effects of this factor in isolation.

In contrast however, Sixsmith, Hawley, Stilwell and Copeland (1993) found no difference in staff-resident interaction levels between a residential home with an explicit, 'person-centred' management stance, and a more traditional setting. Again, it is hard to draw conclusions from these findings as the authors used different assessment tools to assess the two settings.

While, intuitively, managerial approach would be expected to exert a significant influence upon care practices, methodological difficulties regarding the assessment and isolation of this factor have to date restricted the conclusions that can be drawn.

- *Staffing levels.*

In addition to the above findings, Sixsmith et al (1993) also found that the extra staffing in the new 'person-centred' homes was spent on administrative duties. Similarly, Bond and Bond (1990) found that the more institution-oriented wards in their study frequently had a higher staffing ratio than the nursing homes that showed higher levels of staff-resident interaction. Staff:resident ratio alone then, is not reliably associated with care behaviour.

- *Qualification, length of experience and training*

With regard to qualification, Gibbs and Sinclair (1992), in a survey of residential homes, found that qualified staff were more likely to provide higher quality care. Difficulties regarding the reliability of their assessment method restrict the conclusions that can be drawn however. In addition, Salmon (1993), found that qualified nurses showed fewer, but more positive interactions with patients.

With regard to length of experience however, Jenkins and Allen (1998) observed longer serving staff in more negative interactions with residents (a finding supported by Shepherd et al, 1995). However, more highly trained staff reported higher personal accomplishment which, in turn, was associated with more positive interactions.

Promising effects of training were also reported by Proctor, Stratton-Powell & Burns et al (1998) who observed a significant increase in positive staff-resident interactions following six months of staff training in individualised care in residential homes. Baltes, Neuman and Zank (1994) report similar findings, but neither study included any follow up assessment. Those that have report a lack of maintenance (Moniz-Cook et al, 1998) or a need for additional organisational development in order to maintain positive change (Lintern, Woods and Phair, 2000).

These findings would indicate that a qualification in caring can be associated with better quality care and that a training course is associated with more individualised care than experience gained in the post. Training alone may not be sufficient to maintain quality of care however.

- *Resident ability level*

Findings regarding the impact of resident ability levels upon interactions with staff have been mixed. Shepherd et al (1995) found that residents with the lowest ability levels were engaged in significantly more negative interactions with staff. Furthermore, this relationship was not accounted for by residents initiating the negative interaction.

Alternatively, Baltes, Honn, & Barton et al's (1983) sequential lag analysis found that residents' dependent behaviours were most instrumental in eliciting social contact and support whereas non-engagement or independence were more likely to be ignored. This would suggest that carers may spend more time engaged with the more dependent, lower ability residents.

It seems resident ability level could potentially be associated with either increased or decreased levels of interaction. Surprisingly, it has not been a central factor considered in many observational studies and is often not controlled for (Wills and Leff, 1996; Wills, Trieman and Leff, 1998).

- *Perceived involvement in decision making*

In their previously discussed survey of residential homes for older adults, Jenkins and Allen (1998) found that staff who felt involved in the decision making process showed fewer negative interactions with residents.

Summary of section 1.3

This review has brought together several lines of research examining factors within carers, residents and the organisation that could be associated with the provision of individualised care. The conclusions that can be drawn are limited however by the use of cross-sectional designs and the lack of a theoretical framework. Individual studies therefore tend to examine individual predictor variables, preventing the relative impact of these various factors from being assessed. The following section introduces the theory of planned behaviour (Ajzen, 1985), which is proposed as a suitable theory to apply to this research area.

1.4 The Theory of Planned Behaviour

The theory of planned behaviour (Ajzen, 1985, 1991) is a generic model of social decision making developed from the theory of reasoned action (Ajzen and Fishbein, 1980). It considers aspects of the individual's personal attitudes, the influence of social pressures and the person's perception of available resources, when determining the likelihood of a specific behaviour being performed. In this way, it can incorporate many of the separate factors reviewed above that have been found to influence the provision of individualised care.

The model suggests that the intention to perform a particular behaviour is determined by the following three factors:

- Attitude toward the behaviour.

A person's attitude towards a behaviour is thought to develop from the beliefs they hold about the behaviour and its expected outcome. These beliefs are referred to as *behavioural beliefs*.

- Subjective Norm

This is the perceived opinion of significant others regarding performance of the behaviour. It is thought to develop from *normative beliefs* about the relative likelihood of important others approving or disapproving of the behaviour.

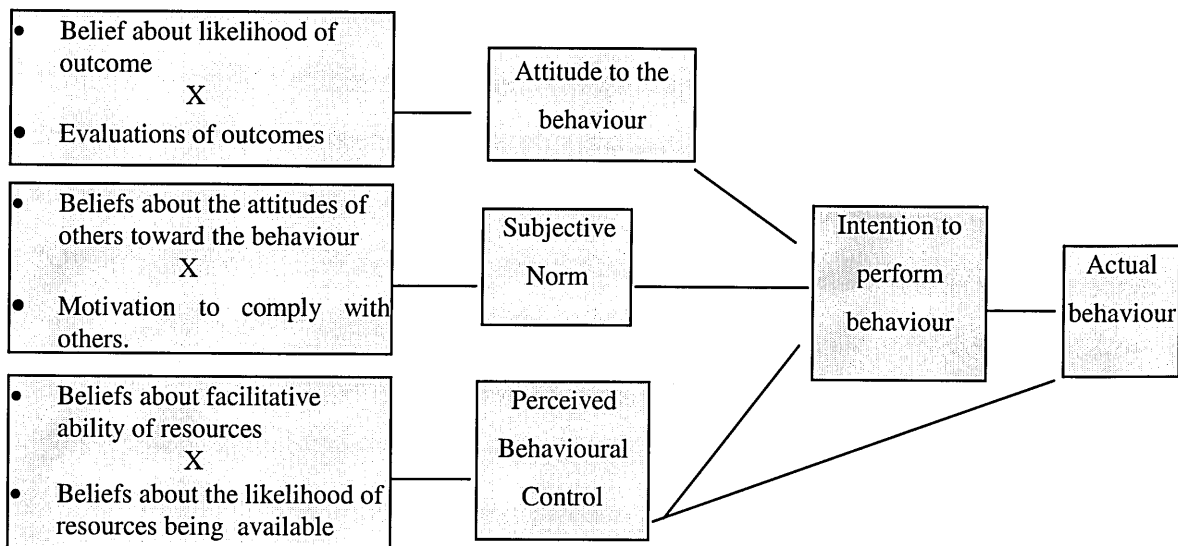
- Perceived Behavioural Control

This factor was added to the original theory of reasoned action (Ajzen, 1991; Ajzen and Fishbein, 1980; Ajzen and Madden, 1986; Madden, Ellen & Ajzen, 1992) in order to accommodate situations where the individual does not have complete volitional control over performance of the behaviour. Perceived behavioural control is developed from *control beliefs* concerning the perceived presence or absence of relevant resources.

Each of these factors is therefore postulated to be derived from a particular set of beliefs. Each factor is assessed directly, but also indirectly, by asking about the respondent's behavioural, normative and control beliefs.

Attitude, subjective norm and perceived behavioural control interact to determine the person's *intention* to perform the given behaviour. Whether the behaviour is performed or not is determined by both the intention to perform the behaviour, *and* influenced directly by perceived behavioural control (Figure 1.2).

Figure 1.2. The Theory of Planned Behaviour (Ajzen, 1985, 1988, 1991).



The theory of planned behaviour can conceptualise the factors affecting carers' decision to provide individualised care. It incorporates many of the factors identified within the previous literature as being of importance. It also has sufficient flexibility for any additional factors to be added to the analysis (i.e. Beck and Ajzen, 1991; Conner, Martin, Silverdale & Grogan 1996). It therefore appears to be an appropriate framework for this area of research. Before proceeding however, the following section goes on to consider the theory's empirical basis.

1.4.1 Empirical support for the theory of planned behaviour

A number of studies, most examining a form of health behaviour, have successfully used the theory of planned behaviour to account for social decision making processes. Some of these are now referred to in a consideration of the empirical status of the theory of planned behaviour.

- *Evidence of validity - does the theory of planned behaviour predict intention?*

Conner, Graham and Moore (1999) found all three components of the theory of planned behaviour predicted intention to use condoms, accounting for 36-50% of the variance in intention, with perceived behavioural control having the strongest influence. Giles and Cairns (1995) and Conner et al (1996) have reported similar findings with respect to blood donation and dieting respectively.

In a review of studies applying the theory of planned behaviour, Ajzen (1991) found the theory of planned behaviour accounted for a range of 43 to 94 per cent of the variance in behavioural intention. Subjective norm was identified as the least reliable component.

- *Evidence of validity: Does intention predict behaviour?*

Armitage and Conner (1999) found that intention significantly predicted actual food choice over a 3 month period. Similarly, Flecknoe (1998) found that intention significantly predicted actual provision of 1:1 care over one month, accounting for 33% of the variance in actual behaviour. A similarly strong correspondence between

intention and behaviour has been consistently reported in the available literature (Giles and Cairns, 1995; Terry and O'Leary, 1995).

- *Belief-based measurement of the components of the theory of planned behaviour.*

Research to date has provided moderate support for the belief-based nature of the theory of planned behaviour. Reported correlations between belief-based and direct assessments of the theory of planned behaviour components have ranged from .37 to .71 (Ajzen, 1991; Ajzen and Madden, 1986; Van Den Putte, 1993, cited by Conner and Sparks, 1995). While these significant correlations all indicate that a relationship exists, their moderate strength indicates that the nature of this relationship is yet to be accurately defined.

- *Evidence of reliability of constructs*

Ajzen and Madden (1986) reported satisfactory reliability coefficients for direct and indirect measures of each of the theory of planned behaviour constructs, ranging from .69 to .84. Similarly, Whitehead (1997) reported reliability coefficients ranging between .61 to .86.

Fewer studies use a longitudinal design to allow the test-retest reliability of the model to be assessed. Whitehead (1997) and Flecknoe (1998) both reported satisfactory retest-reliability in a sample of 30, one to eight months after initial testing.

In sum, the theory of planned behaviour has sufficient empirical support to be used in the current study. There is evidence that the primary scales used to assess the model

have satisfactory reliability and validity and the relationship between components and their underlying beliefs is generally at an acceptable level.

1.4.2 Methodological issues regarding the theory of planned behaviour

- *Correspondence*

Ajzen (1985) emphasises that for full predictive capacity, the scales used to measure the various components of the theory of planned behaviour must refer to precisely the same behaviour, specified in relation to its target, context, time and action. In addition, the type of scale used to assess each of the components must be equivalent.

- *Applying the theory of planned behaviour to a repeated behaviour*

By nature, a repeated behaviour is a 'continuous' construct, that is, it can be of any length, number or duration. In order to meet the correspondence criteria however, the behaviour must be precisely specified. To enquire regarding 'providing 1:1 care' is too general a behavioural definition.

Ajzen and Fishbein (1980) present two options. Firstly, the theory could be applied separately to each repetition of the behaviour. Alternatively, the repeated behaviour could be specified and presented as a limited, 'dichotomous' construct (i.e. 30 minutes of 1:1 care). This approach offers stronger scale correspondence and enhances prediction of intention but can limit the model's prediction of actual behaviour (Courneya, 1994; Courneya and McCauley 1993; Flecknoe, 1998).

- *The sufficiency of the model*

The sufficiency of a predictive model refers to the extent to which it provides a full account of the given behaviour (Beck and Ajzen, 1991). Past behaviour can be used as a general test of the model's sufficiency². If it retains its predictive ability once the theory of planned behaviour components have been accounted for, it may indicate that a major predictive factor may not have been accounted for, suggesting that the theory is not sufficient to explain the behaviour, (Ajzen, 1991; Beck and Ajzen, 1991). It may also retain its predictive ability however if the behaviour is habitual or if there is common method variance exclusive to the measurement of past and actual behaviour (Ajzen, 1991; Beck and Ajzen, 1991).

Sheeran and Orbell (1999) propose that a repeated behaviour is more likely to be habitual - that is, triggered automatically by stable environmental cues and therefore requiring little cognitive processing. They suggest that the residual predictive ability of past behaviour may be more attributable to habitual actions when applied to a repeated behaviour.

- *Behavioural plan*

Gollwitzer (1993) proposes that the predictive ability of the theory of planned behaviour will be heightened by distinguishing between the motivation to achieve a goal (intention) and a plan of how to do so (implementation intentions, or behavioural plan). Such a plan would increase the likelihood of performing the intended behaviour

² All other things being stable, past behaviour is the strongest predictor of future behaviour. Once other factors exert a significant influence however, it loses its predictive ability

by identifying an external triggering stimulus, thereby reducing the cognitive load and echoing the process involved in a habitual behaviour.

1.4.3 Previous research applying the theory of planned behaviour to the provision of care in residential homes.

Savelkoul, Commisaris and Kok (1998) used the theory of planned behaviour to investigate the factors associated with the performance of five specified care behaviours in residential homes for older adults. Attitude and subjective norm were concluded to significantly predict behavioural intention.

There were serious methodological limitations to this study however. The authors did not follow Ajzen and Fishbein's (1980) guidelines and reported low internal reliability with Chronbach's alpha coefficients ranging from .32 to .61 for six of the eight factors assessed.

Flecknoe (1998) applied the theory of planned behaviour to the provision of 1:1 care in residential homes for people with a learning disability. Perceived behavioural control was the only theory of planned behaviour component to be significantly predictive, accounting for 35% of the variance in behavioural intention. In addition, he reported satisfactory test-retest reliability (correlations ranged from .49 to .90) and satisfactory internal reliability (a mean Cronbach alpha value of .71, although two scales fell below the desired level of .70).

Summary of section 1.4

The theory of planned behaviour is concluded to have sufficient empirical support for use in the current study. Although there are methodological difficulties involved in applying it to a repeated behaviour, it has been successfully applied to clinical decisions in health care settings. It has not been applied however, to the provision of individualised care in residential settings for older adults.

1.5 Rationale for the present study

This study aims to explore the factors that determine the decision to provide individualised care in residential homes for the elderly, using 1:1 care as a more tangible indicator of individualised care. This form of care provision is an important clinical area to research. There is evidence for its effectiveness (section 1.2.3) yet also for its low prevalence (section 1.2.4). It is important to understand why this is the case and to know what factors might affect this situation in order to inform attempts by managers and practitioners to develop this form of care behaviour in care staff in community residential settings.

Previous research in the provision of 1:1 care has been fragmented and largely atheoretical. This study will consider the provision of care as a social decision making process and the theory of planned behaviour will be used to understand this process. This theory has good empirical support, considers the social context of decision making, incorporates many of the variables identified in previous research and has sufficient flexibility to incorporate additional variables into the study design.

Flecknoe's (1998) study was well designed and considered a similar research question in relation to a similar client group. His design will therefore be replicated in an older adult setting. Much of the previous research will be improved upon by using a longitudinal design to assess actual care behaviour, assessing resident ability and making a complete application of the theory of planned behaviour.

The following factors highlighted in the literature as influential in the provision of 1:1 care will be added to the theory of planned behaviour;

- Perceived involvement in decision making (Jenkins and Allen, 1998)
- Resident ability level (Shepherd et al, 1995)
- Managerial approach to person-centred care (Lindesay et al, 1991)

Both perceived involvement in decision making and perceived behavioural control are conceptualisations of the employee's perceptions of control at work, both have been found to be predictive of interaction levels in residential homes for older adults (Flecknoe, 1998; Jenkins and Allen, 1998), and both are correlated with job satisfaction (Robertson et al, 1995; Spector, 1986). Further examination of the role of perceived involvement within the theory of planned behaviour may help assess the nature of the relationship between these two variables.

Assessing resident ability level and managerial approach will provide an alternative source of information to supplement the self-report of carers, contextual information for practitioners wishing to generalise the findings and clear clinical implications for practitioners and managers hoping to develop individualised care practices.

1.6 Research Questions and Hypotheses

Research Question A: What factors predict the amount of time residential carers decide to spend providing 1:1 care to elderly residents?

- Hypothesis One: When applied to the provision of 1:1 care in residential homes for older adults, the theory of planned behaviour components will significantly predict behavioural intention.
- Hypothesis Two: When applying the theory of planned behaviour to the provision of 1:1 care in residential homes for older adults, behavioural intention, behavioural plan and perceived behavioural control will significantly predict actual behaviour.

Research Question B: How is perceived involvement in decision making related to the provision of 1:1 care?

- Hypothesis Three: Residential carers' perceived involvement in decision making will be positively associated with their perceived behavioural control and will also predict their intention to provide, and their self-reported provision of, 1:1 care.

Research Question C: How do management policies affect residential carers' decision making processes regarding the provision of 1:1 care?

- Hypothesis Four: The extent to which a residential home is resident or institution focused will significantly correlate with the theory of planned behaviour components and will also predict intention to provide 1:1 care.

Research Question D: How does a resident's ability level affect the decision to provide 1:1 care?

- Hypothesis Five: The average level of ability of residents in the homes will be positively associated with the theory of planned behaviour components and will also predict intention to provide 1:1 care.

Research Question E: Is the theory of planned behaviour sufficient to understand the processes involved in the decision to provide 1:1 care?

- Hypotheses six: The theory of planned behaviour will be sufficient to understand the processes involved in the decision to provide 1:1 care (i.e. past behaviour will not significantly predict intention once the theory of planned behaviour is accounted for).

Section Two: Method

This section explains how the study was carried out. The design and the participants included in the study are clarified, the standardised measures used in the study are reviewed and the procedure used to develop the study specific theory of planned behaviour questionnaire is discussed. The pilot stages and data collection procedures are then outlined and finally the ethical considerations discussed.

2.1 Design

A within-group survey design was employed, using a cross-sectional analysis to compare respondents' beliefs with their intention to perform a given behaviour. Some respondents also provided a second assessment giving a retrospective measure of actual behaviour. For these respondents, a longitudinal (repeated measures) design was used.

A measure was developed specifically for the study based upon the theory of planned behaviour. In addition, the Behaviour Rating Scale (BRS, Pattie and Gilleard, 1979), Perceived Involvement Personal Questionnaire (PIPQ, Garety and Morris 1984) and the Policies and Program Information Form (POLIF, Moos and Lemke, 1996) were used.

The behavioural intention and actual behaviour items of the theory of planned behaviour served as the main dependent variables. The theory of planned behaviour components, the BRS, POLIF and PIPQ served as independent variables.

2.2 Participants

All participants were direct care staff working for an independent charitable trust in residential homes for older adults. Participants were recruited from all 17 of the organisation's homes within the local region. All 17 homes had previously been local authority homes.

For the purpose of the study, 'direct care staff' was defined as all staff in regular contact with residents, excluding managers, assistant managers, staff carrying out domestic duties only and night staff. Night staff were excluded as the home managers consulted suggested that the night shift constituted a different working environment, that could not be directly compared to day shifts.

Participants were recruited by liaising first with senior Trust management, then with individual home managers and finally by meeting care staff in person during a 'hand-over' between two shifts. The aims and procedure of the study were explained and questionnaires were left for direct care staff who wished to take part.

2.3 Measures

A questionnaire assessing the factors influencing direct care staff's decision to provide 1:1 care was developed for the study based upon the theory of planned behaviour. The development of the questionnaire is outlined in section 2.4. The three standardised questionnaires used are detailed below.

2.3.1 Behaviour Rating Scale (BRS) (Appendix A)

Description of measure: The BRS assesses level of functioning in older adults. It was developed as part of the Clifton Assessment Procedures for the Elderly (CAPE) (Pattie and Gilleard, 1979). It is an 18 item scale consisting of four sub-scales; physical disability, apathy, communication difficulties and social disturbance. Carers were asked to complete the BRS for one resident for whom they were a keyworker. The resident was not identified and was not required to make any responses themselves.

Reliability and validity of the measure: Pattie and Gilleard (1979) report inter-rater reliability coefficients of .58 to .91 for the four sub-scales of the BRS when used in a social services residential home setting.

Wilcock and Wiltshire (1982) found that the 'physical disability' scale of the BRS had a 91% accuracy rate in identifying residents considered 'fit' by a multi-disciplinary assessment. Clarke, Williams and Jones (1981) found significantly different BRS scores between older adults in local authority homes considered 'problem' and 'non-problem' residents. Regarding comparison with other tests, Kendrick (1985) reported a negative correlation of $-.63$ ($p=0.01$) between the BRS and the Kendrick Object Learning Test.

In addition, the CAPE was initially standardised on local authority homes, providing specific norms with which to compare the scores obtained in the present study (Pattie and Gilleard, 1979).

2.3.2 Policy and Program Information Form (POLIF)

The POLIF is one of five sub-scales of the Multi-phasic Environmental Assessment Procedure (MEAP; Moos and Lemke, 1996). The MEAP was developed to assess residential facilities for older adults. The POLIF is a sub-scale of the MEAP that is completed by managers of residential homes. It looks specifically at the policies and services of such facilities and comprises a further nine sub-scales.

Normative data is available from a survey of 60 US residential homes (Moos and Lemke, 1996). In addition, Benjamin and Spector (1990) surveyed four residential facilities in the UK and reported a similar profile to American studies, adding validity to the use of the MEAP on a British sample.

The four sub-scales of the POLIF used in the present study (Appendix B), are those thought to measure the balance between ‘individual freedom and institutional order’ (Moos and Lemke, 1996). Their description, internal reliability (Cronbach’s alpha coefficient) and test-retest statistics are provided in Table 2.1.

Table 2.1: Description and reliability of the POLIF sub-scales (Moos and Lemke, 1996)

Sub-scale	Sub-scale description	Cronbach’s alpha	Test-retest reliability
Policy choice	Extent to which the facility allows residents to individualise their routines.	.76	.96
Resident control	Extent to which residents are involved in facility administration and influence facility policies.	.80	.84
Provision for privacy	The amount of privacy given to residents	.83	.95
Policy clarity	Formal institutional mechanisms for defining expected behaviour and communicating ideas.	.69	.79

Table 2.1 indicates that the POLIF sub-scales being used have acceptable levels of internal and test-retest reliability (i.e. above or equal to .7, Bryman and Cramer, 1997).

2.3.3 Perceived Involvement Personal Questionnaire (PIPQ) (Appendix C)

The PIPQ is a six item measure intended to assess the extent to which care staff feel involved in their work place. It was initially developed by Raynes, Pratt and Roses (1979) within settings for people with a learning disability where it was found to be predictive of high quality care.

It was later adapted by Garety and Morris (1984) and subsequently Jenkins and Allen (1998) for a non-hospital setting. Jenkins and Allen (1998) reported good correspondence between their adaptation and previous hospital based studies. Their adaptation will be used in the present study.

2.4 Procedure

2.4.1 Development of the theory of planned behaviour questionnaire

The protocol described by Ajzen and Fishbein (1980) for the development of a study specific theory of planned behaviour was followed in the current study.

- **Definition**

Ajzen and Fishbein's (1980) protocol stipulates that the behaviour under study must be clearly specified. As the term 1:1 care could relate to many care activities, it was important to ensure that all respondents were answering with reference to the same behaviour.

A draft definition of 1:1 care was developed by the researcher and three residential home managers (Figure 2.1). This draft definition excluded 1:1 care provided during personal care as this high frequency behaviour would have been difficult for carers to accurately monitor retrospectively. It would also have restricted comparison with Flecknoe's (1998) study.

Figure 2.1: Draft definition of 1:1 care.

- An interaction involving one member of staff and one resident.
- Something that is provided **separately to personal care**. (Although the *way* you provide care is crucial to the quality of care residents receive, that is not what this study is looking at. We are looking at interactions that do *not* happen during a routine care activity such as feeding, dressing or toileting.)
- The member of staff has some **choice** over whether or not to spend this time with the resident (i.e. it is not on your list of duties for that shift).
- The activity is **resident led** - that is, it involves pursuing *their* interests rather than the staff member's.
- The resident is thought to be receiving some **benefit** from it and welcoming the interaction.
- The interaction goes beyond a courteous greeting or answering a one-off question.

Discussion groups held with up to 20 carers in two different homes indicated that this definition had good face validity and that it specified a salient behaviour that they could recall retrospectively with relative ease and accuracy.

The definition incorporates most aspects of person-centred care outlined by Kitwood (1997) (Figure 1.1). It also corresponds closely with the definition Flecknoe (1998) used in a learning disability setting, facilitating comparison between the two contexts.

The definition was piloted with 20 carers from three different homes. They were given five care-giving vignettes and asked to indicate which corresponded with the definition of 1:1 care provided. Table 2.2 summarises their responses.

Table 2.2. Summary of responses to definition pilot (n=20).

Vignette	% of responses that were correct
A	100
B	64
C	86
D	95
E	95

Table 2.2 indicates that most respondents correctly classified four of the five vignettes. Many carers (36%) incorrectly included vignette B, the only one to include personal care, within the definition of 1:1 care. The definition was consequently altered to further emphasise the fact that 1:1 care provided during personal care was *not* included. The vignettes were also incorporated into the main questionnaire as a learning exercise, with respondents being directed to the correct answers once they had classified the vignettes.

- Behavioural Intention Scale

The theory of planned behaviour requires that the behaviour under study be clearly stipulated with regard to the action, time, context and target of the behaviour (Ajzen and Fishbein, 1980). The action under study was clarified by the definition of 1:1, the context was residential homes for older adults and the target was residents within those homes. Further pilot work was undertaken to establish an appropriate time scale to stipulate.

When applying the theory of planned behaviour to a repeated behaviour such as 1:1 care, Ajzen and Fishbein (1980) suggest that the theory components can either be re-assessed for each repetition of that behaviour or the exact amount of the behaviour under study needs to be specified. This latter approach was used in the current study.

A pilot survey was carried out to ascertain the average amount of time carers spent providing 1:1 care in order to maximise the variance and minimise floor and ceiling effects in the behavioural intention variable.

The discussion groups with carers indicated that more opportunity for 1:1 care arose during late (afternoon) shifts. As a two week period provided an equal distribution of early and late shifts, the time frame of the behavioural intention item was specified as an average amount of time per shift, *over the next two weeks*.

The amount of time spent providing 1:1 care was specified in terms of the average number of minutes per shift as this provided a concrete, constant measure on an interval scale.

A questionnaire was included with the vignette pilot (Table 2.2) asking carers to rate, on a seven point scale, how likely they were to spend various lengths of time per shift providing 1:1 care over the next two weeks (Appendix D). Their responses are summarised in Table 2.3. The six respondents incorrectly classifying the vignettes were excluded from the analysis. However, it is interesting to note that a second

analysis including their responses produced equivalent findings, even though these respondents did not receive the vignettes as a learning task.

Table 2.3. Summary of pilot survey of behavioural intention scale (n=13).

Average amount of time per shift spent providing 1:1	Mean response (scale of 1-7)	SD
15 minutes	2.00	1.29
30 minutes	2.85	1.52
45 minutes	4.62	1.61
60 minutes	5.85	1.46
1.5 hours	6.46	.88
2 hours	6.54	.88
2.5 hours	6.54	.88
3 hours	6.77	.83

Forty-five minutes was chosen as the specified amount of 1:1 care as it had the highest standard deviation and a mean close to the scale midpoint of four (Table 2.3). This suggests a greater likelihood of responses having sufficient variance and being normally distributed. This finding was accepted, despite the small size of the pilot sample, as it corresponded with Flecknoe's (1998) survey of carers working in a learning disability setting.

- Item content

The theory of planned behaviour guidelines (Ajzen and Fishbein, 1980) distinguish between direct and indirect measures of each theory of planned behaviour construct. Direct measures ask respondents about each component, while indirect measures ask respondents about their behavioural, normative and control beliefs. The indirect measures can provide a more detailed understanding of the population under study.

Semi-structured interviews were carried out, in accordance with the theory of planned behaviour guidelines, with a representative sample of carers. The interviews aimed to identify the modal salient behavioural, normative and control beliefs regarding 1:1 care held in the population of residential carers under study.

Interviews took place in a quiet room within the residential home. Potential interviewees were given an information sheet (see Appendix E and section 2.4.2). Interviewees who wished to continue were asked to complete a consent form (Appendix F). All interviews were tape recorded. The interviews were then transcribed, removing any identifying information, and the tapes destroyed.

The interview structure followed Ajzen and Fishbein's (1980) guidelines and is summarised in Appendix G. The ordering of questions was determined by an attempt to start the interview with issues of interest to the interviewee and to leave potentially more threatening items until the end of the interview (Oppenheim, 1992).

Interviewees were recruited from three residential homes. Nine interviews were completed, each lasting between 20 and 40 minutes. Eight of the interviewees were female and one was male. This gender balance seemed to be representative of the predominance of female employees within the organisation's care staff. A range of experience levels were represented in the sample, from six months to 22 years.

Once interviews were transcribed, individual beliefs were identified for each respondent. These were cross-referenced with responses from other interviewees until

more general themes emerged. These themes were subsequently treated as ‘salient beliefs’.

Table 2.4a-c provides a summary of the salient beliefs for each theory of planned behaviour component. The frequency of each salient belief refers to the frequency with which the items comprising each belief (or theme) were mentioned.

Following Ajzen and Fishbein (1980), the most frequently mentioned salient beliefs that accounted for 90% of the initial beliefs generated were selected for inclusion in the questionnaire as individual items.

Table 2.4a. Modal salient beliefs: Attitude

Salient beliefs generated by interviewees (n=9)	Frequency	Cumulative percentage
Makes job more enjoyable and rewarding for staff	8	13.11
Allows you to develop a closer relationship with the resident	7	24.59
Reduces resident’s emotional distress	7	36.06
helps residents adjust to residential care and other stressors	6	45.9
Helps you develop a closer relationship with the client’s family	5	54.09
Other residents might feel neglected	5	62.29
Helps you understand the resident and so meet their needs better	5	70.49
Keeps residents stimulated	5	78.68
Reduces disruptive behaviour	4	85.24
Provides residents with a person they can trust	3	90.16
<i>Might not complete the jobs you need to do</i>	1	
<i>Inconvenience clients if routine is disrupted</i>	1	
<i>It does them a lot of good</i>	1	
<i>Makes work more of a burden (harder to switch off)</i>	1	
<i>Gives staff more experience on how to cope with things</i>	1	

Table 2.4b. Modal salient beliefs: Subjective Norm

Salient beliefs generated by interviewees (n=9)	Frequency	Cumulative percentage
Residents	7	23.33
Other care staff	6	43.33
Resident's family	6	63.33
Management	7	86.66
Team leader	1	90
<i>Public</i>	<i>1</i>	
<i>Previous employers</i>	<i>1</i>	
<i>Doctors and nurses</i>	<i>1</i>	

Table 2.4c. Modal salient beliefs: Perceived behavioural control

Salient beliefs generated by interviewees (n=9)	Frequency	Cumulative percentage
Working with lower functioning client group (require careful monitoring and are highly dependent upon you).	13	18.3
Having more staff on duty	11	33.80
Having essential domestic or personal care tasks to do	10	47.88
A resident seems low or upset	7	57.74
Feeling pressured to get things done in time	6	66.2
Having 1:1 formally recognised with time and resources made available	6	74.64
The resident welcomes or initiates an interaction	5	81.7
Residents are mentally unwell and difficult to communicate with	4	87.32
Feeling tired and under the weather myself	3	91.54
<i>Knowing your residents well</i>	<i>2</i>	
<i>Crisis or unexpected event</i>	<i>1</i>	
<i>Taking a resident to specialist service</i>	<i>1</i>	
<i>Season</i>	<i>1</i>	
<i>Unsure what to say</i>	<i>1</i>	

Some of the discarded items may represent less socially desirable responses that could influence decision making but are not readily volunteered, despite emphasis upon the confidentiality of the discussion. It is possible that Ajzen and Fishbein's (1980) assumption that the salience of beliefs corresponds with their significance may not take sufficient account of the social context of disclosing such beliefs.

The salient beliefs generated in interviews corresponded with issues raised in group discussions, increasing estimates of the interview sample's representativeness of the study population.

- Design and layout of draft questionnaire

The theory of planned behaviour guidelines (Ajzen and Fishbein, 1980) informed the design and layout of the draft questionnaire (Appendix H). The perceived behavioural control section was placed at the start of the questionnaire as it was anticipated that this would seem most relevant to carers. Sections requiring more personal disclosure (demographic information and retest consent) were placed towards the end of the questionnaire (Oppenheim, 1992).

This draft questionnaire was piloted on colleagues and friends for readability and face validity. Amendments were made to address minor typographical and formatting errors.

- Design and layout of re-test questionnaire

The retest questionnaire comprised the complete theory of planned behaviour questionnaire with the 'request for consent to be re-contacted' section omitted. The past behaviour response at retest provided a measure of actual behaviour that corresponded with the initial assessment of behavioural intention.

2.4.2 Design and layout of information sheets

Information sheets were developed for each aspect of the study to ensure that consent was well informed. Each information sheet included details of the study itself, how the particular procedure would contribute to the study, any relevant ethical issues and contact information. The structure and main components of each information sheet are summarised in Appendix E.

2.4.3 Design and layout of consent forms

All interviewees completed a consent form prior to the interview (Appendix F). This form restated the aim of the study, the purpose of the interview and the confidentiality and anonymity precautions being taken. The respondent was asked to confirm that they had read the information sheet and understood their status regarding confidentiality and the voluntary nature of their participation. Contact information was provided at the bottom of the page.

A consent form was not included in the questionnaire survey as it would compromise the anonymity of respondents who returned the form with their completed questionnaire. All three ethics committees confirmed that completion of the questionnaire provided sufficient indication of consent.

2.4.4 Secondary pilot study

A pilot study was carried out of the full survey in order to test for internal reliability, time taken to complete the survey, and floor or ceiling effects.

The full survey was piloted on two of the residential care homes run by the Trust. The procedure was as for the main study. The findings are reported in the results section. Following minor accuracy and clarity alterations, data collection for the main study then began. As no major alterations were made to the questionnaire, the secondary pilot data was included in the main study.

2.4.5 Data collection procedures

Each home was visited during a shift hand-over or at a staff meeting, allowing the researcher to meet with a group of staff from each home. These visits lasted 15-60 minutes. The researcher discussed the points made in the information sheet and emphasised the exclusion of personal care from the study definition of 1:1 care. Carers were given the opportunity to ask questions. Twenty survey packs were left at each home.

The researcher returned after a two week interval to collect completed questionnaires and to leave retest questionnaires for consenting respondents. These were coded to allow comparison between test and retest responses, while preserving respondent anonymity. The researcher returned in a further two weeks to collect completed retest questionnaires.

2.5. Ethical considerations

Ethical approval was applied for and obtained from the three ethics committees pertaining to the three regions surveyed (Appendix I). Ethical approval was also provided for any revisions to the research procedure.

Verbal consent was obtained initially from the manager of the trust being surveyed and subsequently from the managers of each home. The trust manager was consulted throughout the study and approved each measure and any procedural revisions.

By consenting for re-testing at the end of the theory of planned behaviour questionnaire, respondents included identifying information with their completed questionnaire. By urging respondents to seal their completed questionnaires in the enveloped provided, it was intended to reduce the threat to respondent anonymity that this arrangement posed.

There was some concern that managers may inadvertently coerce care staff to take part in the study as a consequence of their position of authority. Care was taken to emphasise on the information sheet that participation was voluntary and this was reiterated at meetings with each staff group.

An additional ethical consideration was the potential disruption to residents as carers completed their questionnaires during shift time. It was clarified with carers at each distribution meeting that the impact upon residents could be minimised if staff tried not to take the required thirty minutes during the same shift as each other.

Section Three: Results

This section describes the findings of the study. The response rates and characteristics of respondents in the pilot and main study are first described, followed by an examination of the summary statistics for each of the measures. The findings in relation to the psychometric properties of the theory of planned behaviour scale are then considered, before detailing the analyses relating to each of the six hypotheses. Supplementary analyses are then described.

3.1 Response rates

- Secondary pilot study

Of the 40 survey packs distributed, 20 were returned completed (nine from home A, 13 from home B), reflecting a 50% response rate.

- Main study

103 completed questionnaires were returned. One was excluded due to missing data, leaving a valid sample of 102. The total population of carers is approximately 300. The main sample would therefore represent a 34% response rate. This is similar to response rates typically associated with a postal survey (Goyder, 1985).

3.2 Characteristics of respondents

- Secondary pilot study

Of the 19 respondents indicating their gender, one was male. The mean length of experience working with older adults was 9.86 years, ranging from one and a half years to 25. Most of the pilot sample were qualified (14 of the 18 who responded).

Consultation with the training co-ordinator for the Trust, and a recent national survey of residential carers (King’s Fund, 2001), indicate that the sample is likely to over-represent qualified carers.

The age distribution of the pilot sample is summarised in Table 3.1. The Trust manager indicated that this was representative of the age range of the company’s residential carers for older adults.

Table 3.1 Age of pilot respondents (n=19)

Age range	% of pilot respondents
20 or under	5.3
21-29	21.1
30-39	15.8
40-49	36.8
50-59	10.5
60+	10.5

- Main study

Of the 98 respondents who indicated their gender, 95 (96.9%) were female. Table 3.2 shows the percentage of respondents (n=98) that fell into each age range. The Trust manager indicated that these profiles appeared representative of the company’s residential carers for older adults.

Table 3.2 Age of respondents

Age range	% of respondents
20 or under	9.2
21-29	10.2
30-39	14.3
40-49	37.8
50-59	23.5
60+	5.1

The mean length of time spent working with older adults was 10.5 years, and ranged from 4 months to 40 years. Of the 96 respondents who responded to the item, 61 (63.54%) were not qualified. 'Qualified' was defined, for the purposes of the study, as having an NVQ at level 2 or above. Consultation with the training co-ordinator indicated that this level is representative of the company's residential carers for older adults. A recent national survey (King's Fund, 2001) suggests that this is also representative of residential carers in general.

3.3 Summary statistics

3.3.1 Pilot Study

- Floor and ceiling effects

The summary statistics obtained in the pilot study are reported in Appendix J. The mean and range of the two attitude scales was rather low, indicating a possible floor effect.

The presentation of the direct and indirect attitude scales was altered to include a written definition of each scale point (i.e. 1='Extremely desirable', 2='Quite desirable' etc.) in order to prompt respondents to discriminate between the points on the scale. The wording of each point was taken from Ajzen and Fishbein (1980).

- Time taken to complete survey

A mean completion time of 31.9 minutes was reported, with 94% of respondents completing the survey in 40 minutes or less. This corresponded with other studies using the theory of planned behaviour (Flecknoe, 1998; Whitehead, 1997).

- Accuracy of definition responses

The accuracy of the responses to the vignettes varied greatly between the two homes included in the pilot survey. Six of the nine respondents from home A and one of the 13 respondents from Home B incorrectly included vignette B (describing 1:1 provided during personal care) within the study definition of 1:1.

All respondents were referred to the correct answers provided at the back of the questionnaire, and may therefore have altered their understanding of the definition before completing the main survey.

3.3.2 Main Study

- Theory of planned behaviour questionnaire

Responses to the theory of planned behaviour questionnaire were transposed to ensure that a high score indicated a positive rating of each component. The evaluation items of each scale were scored on a bipolar scale of -3 to +3 (Ajzen, 1991; Ajzen and Fishbein, 1980). Scales calculated by considering the product of an evaluation score with a belief strength score, therefore had a range of -21 to +21.

The summary statistics for the main variables are summarised in Table 3.3. Intention to provide 45 minutes of 1:1 care per shift (of approximately seven hours) was moderate. An average of 27 minutes of 1:1 care per shift was specified on the continuous measure of intention. Respondents reported a positive attitude and subjective norm but their perceived behavioural control was much lower.

Table 3.3. Summary statistics for theory of planned behaviour questionnaire (n=102).

	Mean	SD	Range	Possible range
Indirect attitude	13.13	4.05	23.8 (-2.8 to 21)	41 (-21 to 21)
Direct attitude	6.4	0.74	4.17 (2.83 to 7)	6 (1 to 7)
Indirect PBC ^a	-.35	4.09	22.00 (-9 to 13)	41 (-21 to 21)
Direct PBC ^a	3.19	1.65	6.00 (1 to 7)	6 (1 to 7)
Indirect subjective norm	8.9	6.60	32.20 (-11 to 21)	41 (-21 to 21)
Direct subjective norm	8.5	8.62	27.00 (-6 to 21)	41 (-21 to 21)
Behavioural intention(1 to 7)	3.8	1.82	6.00 (1 to 7)	6 (1 to 7)
Behavioural intention(no. mins)	26.54	22.36	120.00 (0 to 120)	na
Past behaviour	3.6	1.95	6.00 (1 to 7)	6 (1 to 7)
Behavioural plan	4.9	1.65	6.00 (1 to 7)	6 (1 to 7)

^aPerceived Behavioural Control

Table 3.3 also indicates that the theory of planned behaviour variables have reasonably good range and variance, with the exception of 'direct attitude'. With a high mean and a low standard deviation, the variance in this scale is low. This may restrict its power as a predictor variable.

- PIPQ

A wide range of responses were obtained on the PIPQ. The scale ranges from 0 to 24, with obtained responses ranging from 0 to 20. Table 3.4 indicates that the reported level of perceived involvement is similar to that reported in previous research.

Table 3.4 Comparison of PIPQ scores with available norms

	Mean	SD
Current study (n=96)	10.7	4.59
Allen et al (1989) Nursing sample	10.85	4
Allen et al (1989) Care assistants sample	11.89	4.01
Jenkins & Allen (1998) Residential carers for older adults	12.2	6.04

- BRS

The mean total BRS score reported by the current sample indicates that the client group are extremely dependent (see Table 3.5). Their level of dependency appears to be clinically greater than residents in equivalent care provision 22 years ago as indicated by Pattie and Gilleard's (1979) normative information.

Table 3.5 Comparison of BRS scores with available norms

	Mean BRS	SD	Grading	Clinical implications (Pattie and Gilleard, 1979)
Current study (n=79)	18.24	6.34	E: Maximum dependency	"...seen most often in psychogeriatric wards ...the ones who remain in community homes...often present considerable problems to staff in terms of their demands on staff time."
Pattie & Gilleard (1979) (n=117)	12.47	2.1	C: Medium dependency	"People functioning at this level are likely to need residential care or considerable support and help at home."

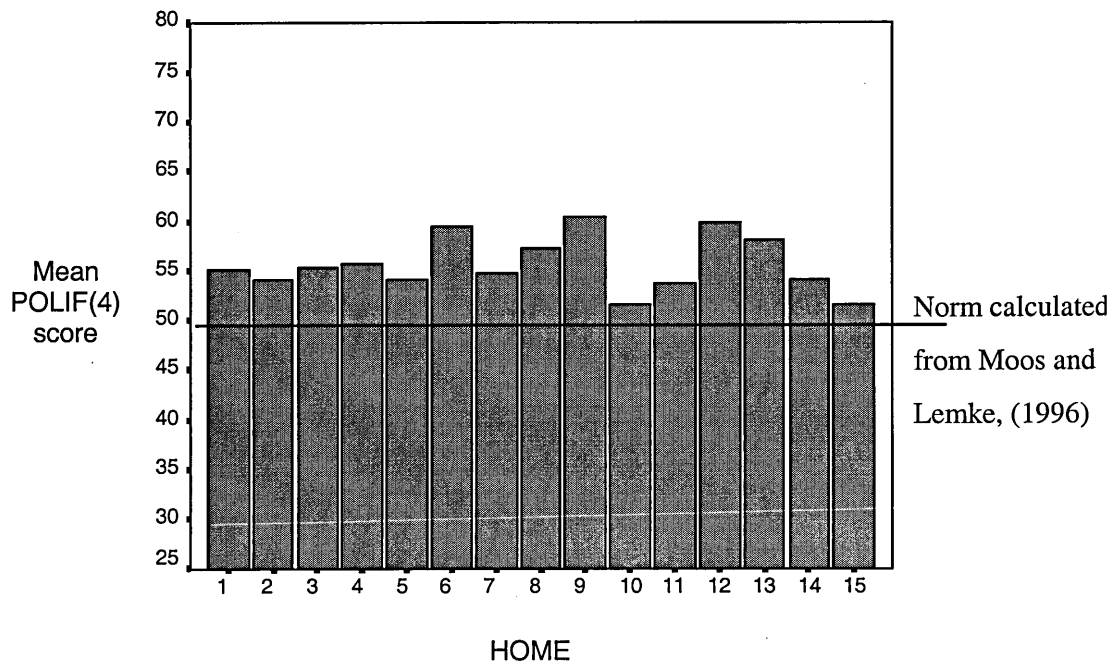
- POLIF

The mean of the four POLIF sub-scales, 'policy choice', 'resident control', 'provision of privacy' and 'policy clarity' was used as an indication of the extent to which the residential home focused upon 'individual freedom' over 'institutional order' (Moos and Lemke, 1996). This averaged score will be referred to as the POLIF(4) score. Figure 3.1 displays the POLIF(4) scores for each of the 15 homes that returned completed questionnaires.

The average POLIF(4) score of these 15 homes was 55.62 (SD 2.79) on a scale of 27 to 80, indicating that the homes were generally balanced in their attention to individual

freedom and institutional order. This corresponds with reported norms (Moos and Lemke, 1996).

Figure 3.1: Mean POLIF(4) scores per residential home



- Differences between homes

The homes in the sample were compared regarding their POLIF(4) and BRS scores, in order to establish whether they could meaningfully be considered to be the same 'context' for the target behaviour (Ajzen and Fishbein, 1980).

A one-way between groups analysis of variance (ANOVA) indicated that there were no significant differences between the 17 homes regarding the mean BRS score reported by carers ($F=.654$; $df=16$; NS). A Levene's test of homogeneity of variance and a Kolmogorov-Smirnov analysis indicated that the conditions for a parametric

analysis of equal variance and normal distribution were met. The mean BRS scores for each home are summarised in Appendix K.

As only one POLIF(4) score was generated per residential home, it was not possible to look for significant differences in scores between homes. Instead, the low standard deviation and similar means (Figure 3.1) are referred to as an indication that there were no major deviations in the scores of each home, or from scale norms.

The homes were subsequently considered as one sample.

- Vignettes

Respondents were asked to indicate whether each of five care vignettes corresponded with the study definition of 1:1 care. Their responses are summarised in Table 3.6. The majority (69%) of the 88 participants who responded to this item answered correctly. However, 25% of respondents incorrectly classified vignette B (describing 1:1 provided during personal care) as corresponding with the study definition of 1:1 care.

Table 3.6. Summary of responses to 1:1 care vignettes (valid n=88).

<u>Response type</u>	<u>% respondents</u>
All vignettes correct	69.3
Error on vignette A	2.3
Error on vignette B	25.0
Error on vignette C	1.1
Error on vignette D	1.1
Error on vignette E	1.1

The vignettes were presented as a learning exercise by directing respondents to the correct answers. It is therefore possible that the 25% who answered incorrectly to vignette B altered their working definition of 1:1 care before completing the main survey. Their data will therefore not be removed from the total sample³. However, the possibility that some respondents are referring to 1:1 care provided during personal care must be considered when interpreting the results.

3.4 Psychometric properties of the theory of planned behaviour scale

- Internal reliability

Table 3.7 summarises the Cronbach's alpha coefficients for each of the theory of planned behaviour scales in both the secondary pilot and the main study. The recommended alpha coefficient indicative of satisfactory internal reliability varies between texts from .7 to .9 (Bryman and Cramer, 1997).

Table 3.7. Cronbach's alpha coefficients for theory of planned behaviour scales.

Scale	No. items	Alpha coefficient pilot study	Alpha coefficient main study
Direct PBC ^a	4	.79	.87
Indirect PBC ^a	9	.64	.66
Direct subjective norm	2	.65	.75
Indirect subjective norm	5	.67	.81
Direct attitude	6	.94	.94
Indirect attitude	10	.79	.81

^aPerceived Behavioural Control

The alpha coefficients obtained in the pilot study ranged from .64 to .94 with a mean of .75. It was therefore concluded that the scale had sufficient internal reliability to proceed to the main study.

³ A later repeat of the main analyses with these cases excluded generated the same pattern of results reported for the main sample.

The alpha coefficients obtained from the entire sample ranged from .66 to .94. The mean alpha coefficient for the scales was .81. The scale was therefore concluded to have an acceptable level of internal reliability.

- Test-retest reliability

Seventeen valid completed questionnaires were returned for retest. The average interval between original completion and retest was 15.9 days (SD 8.16).

A Kolmogorov-Smirnov analysis of the differences between test and retest scores indicated that the score distribution was not significantly different to normal. A paired samples t-test was performed for each of the theory of planned behaviour components (Table 3.8). The only significant difference reported was for behavioural intention ($p < .05$).

Table 3.8 indicates that the Pearson's correlation coefficients between the theory of planned behaviour variables at test and retest ranged from .53 to .92 and were all significant at the .05% significance level.

Table 3.8: Paired t-test and correlation summary of test-retest statistics

Variable	Time 1 mean	Time 2 mean	T-test sig.	Correlation t1 -t2 mean	sig. of correlation
Indirect attitude	15.02	16.13	.08	.82	.0001
Direct attitude	6.83	6.8	.85	.73	.01
Indirect subjective norm	11.58	12.34	.43	.81	.0001
Direct subjective norm	10.87	12.56	.85	.65	.01
Indirect PBC ^a	-.61	-.173	.81	.54	.05
Direct PBC ^a	3.308	3.24	.81	.80	.0001
Intention	4.05	3.65	.05	.93	.0001
Behavioural plan	5.29	4.7	.22	.69	.01

^aPerceived Behavioural Control

The significant difference between time one and time two intention scores indicates that this may be a less stable variable than the other scales with carers tending to report less intention at retest. This difference only just reaches significance however. A 95% confidence interval indicates that the difference in scores could, in practice, be as low as .003 while the correlation analysis indicates a highly significant correlation of .93 between time one and time two intention scores. Therefore, while the difference is a statistically significant one, a strong relationship still exists between the two scores.

3.5 Hypothesis testing

- Assumptions of statistical analyses

Figure 3.2 outlines the statistical assumptions that have been tested for and confirmed whenever a multiple linear regression has been carried out.

Figure 3.2: Assumptions tested for Multiple Linear Regression analyses

- | |
|--|
| <ul style="list-style-type: none">* The data is interval/ratio* The relationship between the dependent and explanatory variables is linear* The residual deviations have a mean of zero* The residual deviations are normally distributed* The residual deviations have constant variance for all values of the explanatory variable* The residual deviations are not related to one another* The residual deviations are not correlated with the explanatory variable.* The ratio of cases to independent variables is >5:1 (Tabachnick and Fidel, 1989). |
|--|

Where a correlation has been carried out, a parametric test (Pearson's product moment) has been used when both variables were found to be normally distributed using a Kolmogorov-Smirnov analysis. Where one or more variables were not normally distributed, a non-parametric test (Spearman's Rho) has been used.

Hypothesis One: When applied to the provision of 1:1 care in residential homes for older adults, the theory of planned behaviour components will significantly predict intention.

A stepwise multiple linear regression was carried out with behavioural intention entered as the dependent variable and the theory of planned behaviour components (direct and indirect perceived behavioural control, direct and indirect subjective norm, direct and indirect attitude) as independent variables.

Indirect and direct perceived behavioural control were the only independent variables found to significantly predict behavioural intention (level for entry, $p < 0.05$). The results of this regression are summarised in Table 3.9 below. The R^2 statistic indicates that the two perceived control variables account for 34.6% of the variance in behavioural intention. Indirect perceived behavioural control was the strongest predictor, accounting for 26.8% of the variance.

Table 3.9. Regression summary table: Hypothesis One.

Independent Variables	B	t	R^2	R^2 change	Std error of estimate	df	F (total)
Indirect PBC ^a	.16	3.76***	.268				
Direct PBC ^a	.35	3.28**		.077			
Total			.346		1.49	2, 91	24.06***
Constant	2.74						

** $p = 0.01$, *** $p < .0001$ ^aPerceived Behavioural Control

The correlation analysis (Table 3.10) indicates that the measures of direct subjective norm and direct and indirect attitude had no significant correlation with measures of behavioural intention or perceived behavioural control. The statistical relationship between perceived behavioural control and behavioural intention found in the

regression analysis would therefore appear to be independent of the other constructs of the theory of planned behaviour. This makes it unlikely that other predictor variables are having their predictive ability masked during the regression through their association with perceived behavioural control.

Table 3.10. Correlation summary table: Hypothesis One.

	1	2	3	4	5	6	7	
Indirect subjective norm	1	1.00	.65**	.47**	.47*	.21*	.17	.04
Direct subjective norm	2		1.00	.52**	.41**	.09	-.05	-.08
Indirect attitude	3			1.00	.61**	.06	.01	.01
Direct attitude	4				1.00	.04	.01	.05
Indirect PBC ^a	5					1.00	.48**	.52**
Direct PBC ^a	6						1.00	.45**
Intention	7							1.00

*p<.05 **p<0.001 ^aPerceived Behavioural Control

There is however, a low correlation ($r=.2$) between indirect subjective norm and indirect perceived behavioural control. This would suggest that as perceived approval of others increases, so too does perceived ability to provide 1:1 care.

It should also be noted that the direct and indirect measures of each construct significantly correlate with each other, providing support for the validity for the belief-based nature of the theory of planned behaviour constructs.

Hypothesis one is therefore partly supported. Direct and indirect perceived behavioural control are significantly related to the perceived likelihood of respondents spending an average of 45 minutes or more per shift providing 1:1 care.

Hypothesis Two: When applying the theory of planned behaviour to the provision of 1:1 care in residential homes for older adults, behavioural intention, behavioural plan and perceived behavioural control will significantly predict actual behaviour.

A stepwise multiple linear regression was carried out with actual behaviour entered as the dependent variable, and behavioural intention, both measures of perceived behavioural control and behavioural plan entered as independent variables (level of entry, $p < .05$). As the measure of actual behaviour was taken at retest, the sample size for this analysis is restricted to 17 cases. The analysis is summarised in Table 3.11 .

Table 3.11: Regression Summary: Hypothesis Two

Independent Variables	B	t	R ² (total)	Std error of estimate	df	F (total)	sig.
Intention	.99	-.65	.69	1.37	1,15	34.00	.0001
Constant	-5.00						

Table 3.12: Correlation summary- Hypothesis Two

	1	2	3	4	5
1. Intention	1.00	.18	.52*	.53*	.83**
2. Behavioural plan		1.00	-.41	-.37	.17
3. Indirect PBC ^a			1.00	.79**	.52*
4. Direct PBC ^a				1.00	.37
5. Actual Behaviour					1.00

* $p < .05$; ** $p < .001$ ^aPerceived Behavioural Control

Behavioural intention was the only independent variable selected for entry into the regression model. The R square statistic indicates that behavioural intention accounts for 69 % of the variance in actual behaviour.

The correlation analysis for the variables included in the regression is reported in Table 3.12. The distinction between predictor variables is not as distinct as in hypothesis

one, as indirect perceived behavioural control correlates with behavioural intention ($r=.52$, $p<.05$). Although it also correlates significantly with actual behaviour ($r=.52$, $p<.05$) it was not included for entry in the regression. The relationship between perceived behavioural control and actual behaviour may therefore be mediated by intention, as proposed in the theory of planned behaviour.

Hypothesis two is partly supported as behavioural intention, but not behavioural plan or perceived behavioural control, significantly predicts actual behaviour.

Hypothesis Three: Residential carers' perceived involvement in decision making will be positively associated with their perceived behavioural control and will also predict their intention to provide, and their self-reported provision of, 1:1 care to older adults.

The correlation between PIPQ scores and the theory of planned behaviour components and intention is summarised in Table 3.13 (see Table 3.10 for full correlation analysis).

As a high PIPQ score indicates low perceived involvement in decision making, the correlation analysis suggests that lower levels of perceived involvement are associated with lower levels of perceived behavioural control and behavioural intention. A stepwise multiple linear regression was performed with the theory of planned behaviour components and PIPQ entered as independent variables (level of entry, $p<.05$), and behavioural intention entered as the dependent variable. PIPQ was not selected for entry into the analysis, indicating that it did not predict behavioural intention independent of its relationship with perceived behavioural control.

The correlation analysis also indicates that there was no linear relationship between perceived involvement and actual behaviour.

Table 3.13. Correlation summary: Hypothesis Three

	Indirect subjective norm	Direct subjective norm	Indirect attitude	Direct attitude	Indirect PBC ^a	Direct PBC ^a	Intention	Actual behaviour
PIPQ ^b	-.18	-.09	-.23*	-.17	-.38**	-.39**	-.22**	-.26

*p<.05; **p<.001,

^aPerceived behavioural control, ^bPerceived Involvement Personal Questionnaire

Hypothesis three is therefore only partly supported. PIPQ correlated with perceived behavioural control, but did not predict behavioural intention or actual behaviour.

Hypothesis Four: The extent to which a residential home is individual or institution focused (as measured by its POLIF(4) scores) will significantly correlate with the theory of planned behaviour components and will also predict intention to provide 1:1 care.

A correlation analysis was initially carried out between the theory of planned behaviour components and the POLIF(4) scores at an individual case level. That is, participants from the same home would be given the same POLIF(4) score. This method of analysis reduces the variance in POLIF(4) scores between cases, thereby rendering it less likely to be associated with other variables. There were no significant correlations between POLIF(4) score and any theory of planned behaviour component.

An alternative means of analysing this data is to reduce the sample size to the 19 homes, assigning each home an average score for each theory of planned behaviour

component. This also did not produce any significant correlations between POLIF(4) score and theory of planned behaviour components. As the assumption of a linear relationship between independent and dependent variable was not met (Figure 3.1) a regression was not carried out to test the predictive ability of POLIF(4).

Hypothesis Five: The average level of ability of residents in the homes will be positively associated with the theory of planned behaviour components and will also predict intention to provide 1:1 care.

The correlation analysis between BRS scores and the theory of planned behaviour components is summarised in Table 3.14.

Table 3.14. Correlation summary: Hypothesis Five.

	Indirect s/norm	Direct s/norm	Indirect attitude	Direct attitude	Indirect PBC ^a	Direct PBC ^a	Intention	Actual b'our
BRS total score	.02	.06	.01	-.04	-.22*	-.29**	-.41**	-.13

** p<0.01, *p<0.05 ^a Perceived behavioural control

Table 3.14 indicates that BRS scores are negatively correlated with behavioural intention and both measures of perceived behavioural control (p=0.01, 2-tailed). As a higher BRS score indicates a *less* able client, this suggests that lower perceived behavioural control and lower intention to provide 1:1 care are associated with working with less able residents.

A stepwise multiple linear regression was performed with the theory of planned behaviour components and BRS score entered as independent variables (level of entry,

p<.05) and behavioural intention entered as the dependent variable. The results are summarised in Table 3.15.

The regression analysis selected BRS as the second predictor variable. The R² change statistic indicates that BRS accounted for a further 9.1% of the variance in behavioural intention after indirect perceived behavioural control was entered. Adding BRS to the regression increased the total variance in behavioural intention accounted for to 40.6%.

Table 3.15. Regression summary: Hypothesis Five

Independent Variables	B	t	R ² (total)	R ² change	Std error of estimate	df	F (total)	sig.
Indirect PBC ^a	1.51	3.26						
BRS ^b	.07	-2.71		.091				
Direct PBC ^a	.28	2.39		.047				
Total			.41		1.43	3, 72	16.44	.001
Constant	4.32							

^a Perceived behavioural control; ^b Behaviour rating scale.

Hypothesis five is therefore partly supported. BRS scores correlate significantly with perceived behavioural control but not attitude or subjective norm and significantly predict behavioural intention.

Hypothesis Six: The theory of planned behaviour will be sufficient to understand the processes involved in the decision to provide 1:1 care (i.e. past behaviour will not significantly predict intention once the theory of planned behaviour is accounted for.)

A hierarchical multiple linear regression was carried out with behavioural intention entered as the dependent variable. The theory of planned behaviour components were all entered as independent variables in block one, with past behaviour entered as the

independent variable in block two. The results of the regression analysis are summarised in Table 3.16.

Table 3.16. Regression summary: Hypothesis Six.

Independent Variables	B	t	R ² (cumulative)	R ² change	Std error of estimate	df	F	sig.
All TPB			.37		1.49	6,87	8.44	.001
Past behaviour	.57	6.49	.57	.208	1.23	7,86	16.65	.001
Constant	.27							

Table 3.16 indicates that past behaviour accounts for a further 21% of the variance in behavioural intention once the theory of planned behaviour variables have been accounted for. This could suggest that the theory of planned behaviour is not sufficient to understand the processes involved in the decision to provide 1:1 care and that other unaccounted for factors are exerting a significant influence upon this decision. Alternatively, the finding may reflect the habitual nature of 1:1 care, or common method variance between intention and past behaviour (Ajzen, 1991; Sheerhan and Orbell, 1999).

The ability of residents may be one unaccounted for predictive factor. The above regression was repeated, including BRS score in block one (Table 3.17). Past behaviour was still predictive of intention, but accounted for less variance (15%).

Table 3.17. Regression summary II: Hypothesis Six.

Independent variables	B	t	R ²	R ² change	Std error of estimate	df	F	sig.
All TPB & BRS			.50		1.41	8,59	7.25	.0001
Past b'our	.52	5.03	.65	.15	1.19	9,58	11.92	.0001
Constant	6.35							

3.6 Supplementary analyses

3.6.1 Demographic variables

A Mann Whitney test of 2 independent samples found no significant difference in behavioural intention as a function of gender ($U=125.5$, NS) or qualification ($U=965$, NS).

A Kruskal Wallis test of 3 or more independent samples found no significant difference in behavioural intention scores as a function of length of experience ($\chi^2 2.94$, NS) or age ($\chi^2 9.94$, NS).

3.6.2 Further analysis of indirect perceived behavioural control

Indirect perceived behavioural control was the theory of planned behaviour component most predictive of behavioural intention. Table 3.18 reports the correlation coefficients between the individual items comprising indirect perceived behavioural control, and behavioural intention. Lower functioning residents and time pressures were most strongly correlated, while items relating to the carer were not significantly correlated with intention.

Table 3.18: Mean scores of individual indirect perceived behavioural control items.

Salient belief	Correlation with intention
Lower functioning residents	.451**
Staff on duty	.284**
Essential domestic tasks	.249*
Resident is upset	.232*
Time pressures	.367**
Time & resources available	.379**
Resident pleased	.123
Difficult to communicate	.161
Carer feels tired	.157

** $p < .001$ * $p < .05$

3.6.3 Qualitative comments

Fifteen respondents provided written comments that have been organised into general themes with illustrative quotations.

Need more staffing and time (4/15 respondents)

“...if there is good cover the amount of 1:1 time is higher”

“...there has been one occasion when we’ve had a full team of staff and I’ve managed 30 minutes with residents on 1:1 care...”

Equality issues (3/15 respondents)

“all clients should be given 1:1 care so as not to feel neglected”

“other carers would approve providing they were given the same amount of time for their clients”

Comments on the study (5/15 respondents)

“Every shift is different, it is hard to generalise”

Client dependency (3/15 respondents)

“...more advice and training is needed to show how to stimulate the residents in the special needs category”

Guilt (2/15)

“...if a resident’s family come in and I am sitting talking to another resident I would feel uneasy as they probably think that is all I do.”

“managers support 1:1 care as long as everything else gets done”

These quotes reflect issues raised in the questionnaire and also suggest that completing the survey has prompted reflection on issues not included in the study.

Section Four: Discussion

This section will start with an overview of the main findings of the study. The methodological limitations are then highlighted and the findings considered in detail in relation to previous literature. The theoretical and clinical implications of the findings are then explored; potential areas for future research are considered and, finally, the main conclusions are summarised.

4.1 Summary of Findings

4.1.1 Psychometric properties of the theory of planned behaviour scale

The measure based on the theory of planned behaviour and developed for this study, was found to have acceptable internal reliability with a Cronbach's alpha mean coefficient of .75 (ranging from .66 to .94). Test retest reliability was also generally acceptable. A paired samples t-test indicated that the only variable (of eight) to differ significantly at retest was behavioural intention ($p=.05$) which was slightly lower at retest.

Validity for the belief-based nature of the constructs (Ajzen, 1991) was good. Strong correlations were found between direct and indirect measures of the theory of planned behaviour components.

4.1.2 Findings related to hypotheses

A stepwise multiple linear regression (MLR) indicated that perceived behavioural control (both directly and indirectly assessed) significantly predicted intention to provide 1:1 care ($p<.0001$), accounting for 35% of the variance. Previous literature

looking at various social decision making processes, has reported ranges from 35%-94% (Flecknoe, 1998; Conner et al, 1999; Conner et al, 1996; Ajzen, 1991). The current study is therefore just within the range reported by these studies. It is important to note however, that a relatively low amount of variance is accounted for.

A stepwise MLR indicated that intention was significantly predictive of actual behaviour ($p < .0001$) accounting for 69% of the variance in actual behaviour ($n = 17$). There was no evidence of a direct predictive relationship between perceived behavioural control (direct or indirect) or behavioural plan and actual behaviour.

Perceived involvement in decision making was significantly correlated with perceived behavioural control ($r = -.38$, $p < .01$) and behavioural intention ($r = -.22$, $p < .01$) but a stepwise MLR did not find it to be predictive of intention.

There was no evidence to indicate that the extent to which the facility was resident oriented (as assessed using the POLIF(4)) had an association with any of the theory of planned behaviour components. (However, low variance in POLIF(4) scores between homes makes it less likely that such a relationship would be found.)

The ability level of residents was significantly negatively correlated with perceived behavioural control ($r = -.29$, $p < .01$) and predictive of a lower intention to provide 1:1 care ($p < .001$) accounting for 9% of the variance. (However, these findings are to be treated with caution due to methodological limitations. See section 4.2.)

Past behaviour was predictive of intention to provide 1:1 care, accounting for 21% of the variance, once the theory of planned behaviour components were accounted for. A Mann Whitney test of two independent samples indicated that intention to provide 1:1 care did not differ as a function of gender or holding a qualification in care. A Kruskal Wallis test of three or more independent samples indicated that intention to provide 1:1 care did not differ as a function of age or length of experience working with older adults.

4.2 Methodological critique

Before interpreting these findings in relation to the previous literature, attention is turned to the methodological limitations that may limit the conclusions that can be drawn.

4.2.1 Sampling

- Main survey sample

Consultation with the manager of the service indicated that the current sample appeared demographically similar to the carers typically employed by the company. A response rate of 34% was achieved for the main study. This corresponds with expected response rates for postal surveys (Goyder, 1985). However, response rate varied considerably between homes with a range of 1 to 15 responses from individual homes.

The possibility of a response bias is raised due to the self-selecting nature of this sample. Possible sources of bias may include the carer's interest in 1:1 care or their

level of emotional strain at work. Conclusions cannot be made regarding the nature of any possible bias because no information was collected on carers who chose not to take part.

The generalisability of the findings may be limited as the respondents were working for the same organisation in a single geographical region. However, the measures of resident ability level (BRS) and managerial approach (POLIF(4)) can provide contextual information to inform interpretation of the findings and for future studies to compare against.

- Retest/actual behaviour sample:

One limitation of the present study was the small size (n=17) of the retest sample (and therefore the number of actual behaviour ratings). This, together with reliance on self-report of actual behaviour, limits the conclusions that can be drawn about the longitudinal stability of measures and the extent to which behavioural intention actually predicts behaviour.

- Behaviour Rating Scale (BRS) sample:

Residents were not randomly selected for assessment using the BRS. The low ability levels reported for each home indicate the possibility of a selection bias operating in favour of less able residents. It may be that carers knew these residents better because of their greater care needs and longer residence within the home. Ideally, carers would have been asked to list the residents for whom they were a key-worker and the researcher choose one of these names at random.

4.2.2 Assessment of actual behaviour

A major methodological restriction of the current study is its reliance upon self-report measures. This reliance can be associated with 'common method variance', i.e. a heightened tendency for correspondence between scales due to the use of the same assessment approach. One means of reducing this may have been to include an observational measure of the actual provision of 1:1 care.

A well validated tool that could have been used to provide an observational measure of 1:1 care is Dementia Care Mapping (Kitwood and Bredin, 1992). The definition of 1:1 care used in this measure has good compatibility with the definition of 1:1 care developed for the study.

However, many studies using the theory of planned behaviour omit to use *any* measure of actual behaviour, restricting themselves instead to a cross-sectional analysis because of strong research evidence for a high correspondence between self-reported intention and actual behaviour (Armitage and Connor, 1999; Ajzen and Madden, 1986). The use of a self-report measure of behaviour in the current study therefore represents a methodological improvement on much of the previous literature.

Finally, the use of observational methods would have raised ethical difficulties with respect to the amount of intrusion it entailed for the elderly residents and also for the evaluation anxiety it can generate within carers. Methodologically, it can also be difficult to maintain correspondence between scales when using an observational assessment of a repeated behaviour (Courneya, 1994).

4.2.3 Social desirability bias

A major limitation in the use of self-report measures is the tendency for respondents to edit their responses in order to present themselves in a favourable light. An extremely favourable attitude toward 1:1 care was reported in the current study (Table 3.3). This may be partly attributable to social desirability bias, although this was not formally assessed. In retrospect, a scale that assessed 1:1 relative to other forms of care may have been helpful in reducing this tendency.

4.2.4 Consistency regarding definition of 1:1 care

The high error rate for the classification of vignettes (Table 3.6), suggests that some respondents may have included personal care within their definition of 1:1 care. This may have led to an overestimation of the provision of 1:1 care. However, this section was presented as a learning task, so although there is no measurement of performance after learning, the error rates in Table 3.6 may be an overestimate for the study itself. In addition, when the main analyses were repeated *including* respondents who had responded incorrectly in the pilot and *excluding* them in the main study, equivalent findings were reported. In retrospect however, it would have been preferable to have carried out further pilot work to improve definition accuracy.

4.2.5 Methodological issues regarding the assessment of a repeated behaviour

As discussed in the introduction, the theory of planned behaviour is restricted in its application to repeated behaviours (Courneya, 1994; Courneya and McAuley, 1996; Flecknoe, 1998). The current study followed the approach adopted by Flecknoe (1998), who questioned respondents about performing an average amount of the

behaviour under study, rather than assessing each repeated occurrence in turn. However, one disadvantage of this method was that it resulted in lengthy questions that may have been off-putting to respondents and may partly account for the low response rate.

An alternative design would have been to question respondents regarding a vignette (Jurgens, 1998; Verette and Godin, 1996; Whitehead, 1997). However, the correspondence between vignette responses and actual behaviour is not as thoroughly researched as that between self-reported and actual behaviour. Whitehead (1997) for instance, when comparing vignette and self-report estimates of actual behaviour, found that vignettes tended to provide an over-estimate of a socially desirable behaviour.

4.2.6 Statistical analysis

The analyses used were appropriate and in line with previous research. However, an implicit assumption was made that the multiplied, summed and averaged ordinal scales could be treated as interval data.

4.3 Interpretation of findings

The main findings will now be considered in more detail and in relation to previous literature. The findings regarding carers' intention to provide 1:1 care are first considered followed by an examination of the relative influence of each of the main variables examined in the study. Finally, evidence regarding the sufficiency of the theory of planned behaviour is considered.

4.3.1 Prevalence of 1:1 care

The moderate intention rating of 3.8 was expected considering the pilot work carried out to ensure high variance within this measure. When assessed using a continuous scale, respondents reported intending to provide an average of 27 minutes of 1:1 care per shift. This figure provides a higher estimate of 1:1 care than that provided in earlier observational studies (Salmon, 1993; Clark and Bowling, 1989). It corresponds more closely with Jenkins and Allen's (1998) more recent observational study and Flecknoe's (1998) survey findings in a learning disability setting.

However, the shared reliance on self-report in the current study and Flecknoe's (1998) study, may have lead to an overestimate of 1:1 care provision.

4.3.2 Staff attitudes

Respondents reported a highly positive attitude towards 1:1 care which, allowing for the possibility of a social desirability bias, suggests that the association of 1:1 care with good quality care may have been communicated effectively to direct carers. However, this positive attitude was not predictive of behavioural intention. It is interesting to note that when previous studies *have* found an association between carer attitudes and care behaviour this has generally been between negative attitudes towards residents and care behaviour (Kahana and Kiyak, 1984; Fineman, 1994).

It may have been more informative to assess attitude to 1:1 care relative to other care behaviours in order to reduce social desirability bias, or to assess it formally in order to control for it.

4.3.3 Subjective norm and managerial approach

Overall, subjective norm scores indicated that respondents perceived important others to be in favour of them providing 1:1 care. However, qualitative comments and issues arising in the interviews indicated that one perceived consequence of a carer providing 1:1 care was that they would be less available for other tasks, increasing the burden placed on their colleagues.

Unfortunately, it was not possible to draw conclusions about the possible impact of managerial approach due to the low variance in this measure between homes. This low variance may reflect a consistent managerial approach throughout the organisation. Alternatively, the potential variability may have been limited by the scale's dichotomous scoring structure that permits only a 'yes/no' response to most items.

4.3.4 Perceived behavioural control

The low levels of perceived behavioural control reported in the current study correspond with issues identified in Baillon et al's (1996) survey of staff in residential homes for older adults. They found that most staff reported having insufficient staff on duty, too many things to do at once and too little time to spend with residents. The present study's finding that perceived behavioural control was the sole significant predictor of intention to provide 1:1 care corresponds closely with Flecknoe's (1998) findings obtained in a learning disability setting. Perceived barriers may not therefore be specific to the current sample.

It is not clear to what extent respondents' perceptions of control correspond with the actual control available to them. Having sufficient time and staff on duty correlated strongly with intention (Table 3.18). However, studies that have examined the role of actual staff:resident ratio have found that it does not correlate with (Bond and Bond, 1990; Sixsmith et al, 1993) or predict (Flecknoe, 1998) the provision of 1:1 care.

Furthermore, Ajzen (1991) suggests that in situations of close correspondence between perceived and actual control a direct relationship between perceived behavioural control and actual behaviour should be evident. That was not the case in the current study.

4.3.5 Resident ability level

The BRS scores used to assess residents' ability indicate a lower level of functioning than the norms provided by Pattie and Gilleard (1979). One possible explanation for this finding is that the level of dependency in residential homes has increased since 1979, following the political changes outlined in the introduction. However other, more recent, studies have reported BRS scores that correspond with Pattie and Gilleard's (1979) norms (McAuslane and Sperlinger, 1994; Orrel and Bebbington, 1998; Ward, Murphy, Proctor and Weinman, 1992). An alternative explanation, as suggested earlier, is that as the sample of assessed residents were not randomly selected, a bias may have been operating whereby respondents chose to assess the most dependent residents.

Level of resident ability, as assessed by the behaviour rating scale (BRS), was significantly negatively correlated with indirect and direct measures of perceived behavioural control and significantly predicted behavioural intention. Furthermore, low resident ability was identified within indirect perceived behavioural control as a potential barrier to 1:1 care provision.

These findings suggest that the residents most in need of 1:1 care (Kitwood, 1997) may be less likely to receive it. Three possible explanations for this are suggested. Firstly, caring for less able residents may leave less time available for 1:1 care. Time pressures were also identified within the current study as a potential barrier to 1:1 care provision (Table 3.18).

Secondly, caring for less able clients can also be a more emotionally demanding role (Novac and Chappell, 1994). Providing less 1:1 care could act as a defence against the emotional strain of caring for this client group (Kitwood, 1997; Zagier Roberts, 1994). Finally, carers may be less aware of the potential benefits of 1:1 care in this less able client group, and less confident regarding techniques for communicating effectively.

4.3.6 Perceived involvement in decision making

The correspondence with available norms regarding the perceived level of involvement in decision making, indicated that this was not perceived as a particular problem by care staff (Allen, 1989; Jenkins and Allen, 1998). It was nevertheless strongly associated with perceived behavioural control and associated with but not predictive of, intention to provide 1:1 care. This finding shows some correspondence with that of

Jenkins and Allen (1998) who found that high involvement in decision making was associated with fewer observed negative interactions. These findings suggest that perceived involvement in decision making, while associated with care behaviour, may represent only one aspect of the more predictive factor, perceived behavioural control.

4.3.7 Demographic characteristics of the staff group

The current study did not find any difference in self-reported intention to provide 1:1 care as a function of gender, age, length of experience or qualification in caring. In contrast, previous observational studies (Gibbs and Sinclair, 1992; Jenkins and Allen, 1998; Salmon, 1993) have found that more qualified staff tend to show more 'positive' interactions with residents. Jenkins and Allen (1998) also reported that staff who had spent more years caring for older adults were more likely to be observed in negative interactions with residents.

This apparent discrepancy may be attributable to the current study's use of a self-report measure which may have inflated respondent's estimates of intention.

4.3.8 Sufficiency of the model - the role of past behaviour

Past behaviour was significantly predictive of behavioural intention once all the components of the theory of planned behaviour were accounted for. This suggests that there may be other predictive factors unaccounted for by the theory (Beck and Ajzen, 1991). This conclusion is supported by the relatively large amount of variance unaccounted for in the regression analyses (Table 3.15). This matter is discussed further in the following section.

4.4 Theoretical Implications

The main theoretical implications raised by the study are the extent to which the findings support the theory of planned behaviour and the value of incorporating behavioural plan as an element of behavioural intention.

4.4.1 Support for theory of planned behaviour

The current findings provide empirical support for many aspects of the theory of planned behaviour. The positive correlations between indirect, belief-based, measures of the components, and their directly assessed counterparts, provides support for the belief-based approach to attitude formation proposed by Ajzen and Fishbein (1980) and Ajzen (1991). These findings correspond closely with those of previous studies (Ajzen, 1991; Madden, Ellen and Ajzen, 1992; Flecknoe, 1998).

The prediction of intention by perceived behavioural control supports the development of the theory of reasoned action to account for situations with limited volitional control (Ajzen, 1991; Madden, Ellen and Ajzen, 1992). The high correspondence between intention and actual (self-reported) behaviour further supports the validity of the theory of planned behaviour, although the small sample size and reliance on self-report limits the conclusions that can be drawn here.

The relatively large amount of variance not accounted for suggests that there may be other factors that influence the provision of 1:1 care that are not incorporated within the theory. Resident ability appeared to be one such factor unaccounted for within the

model (Table 3.17). Future research may also usefully explore alternative assessments of the role of managerial approach.

Other factors that may explain the relatively large amount of variance unaccounted for include the possibility that more influential but less socially desirable factors were less frequently raised in interviews and therefore excluded from the questionnaire (Table 2.4). Alternatively, in accordance with Sheeran and Orbell (1999) 1:1 care may be provided as a habitual response to environmental cues, leaving it relatively unaffected by the cognitive factors assessed within the theory of planned behaviour.

4.4.2 Conceptualisation of intention

Gollwitzer (1993) argues that greater predictive ability is possible within the theory of planned behaviour by differentiating between the commitment to achieve a goal (intention) and a plan of how to achieve this goal (behavioural plan). However, behavioural plan was not found to be significantly predictive of actual behaviour in the current study indicating that, contrary to Gollwitzer's suggestion, it did not add to the predictive ability of the theory of planned behaviour.

The relatively simple assessment made of behavioural plan limits the conclusions that can be drawn here however. A more valid assessment may have been to ask respondents to specify the conditions under which they intend to provide 1:1 care.

Further analysis could consider the impact of behavioural plan upon the residual predictive ability of past behaviour. Orbell (1997) found that forming a clear

behavioural plan could reduce the residual predictive ability of past behaviour. Theoretically therefore, the formation of a plan could re-engage cognitive reasoning and disrupt habitual, behavioural responses.

4.5 Clinical Implications

The main clinical implications identified concern the role of training, the habitual nature and reinforcement of 1:1 care, staffing levels, role clarity and involvement in decision making. Specific implications for clinical psychologists are then considered.

4.5.1 Training in individualised care approaches

The findings of the current study indicate that the main barrier to the provision of 1:1 care is the low perceived ability of carers to provide such care. A straightforward implication would be to provide training to increase perceived ability. However, carers perceive themselves to have a highly positive attitude towards 1:1 care and identify few, if any, barriers within themselves. Education or training in isolation is therefore unlikely to be perceived as relevant to their situation. This may help account for the difficulties that have been reported in previous literature (Moniz-Cook et al, 1998) in maintaining behavioural changes in residential care settings for older adults following a training programme.

4.5.2 Breaking habits

One interpretation of the residual predictive role of past behaviour in the current study is that 1:1 care tends to be provided habitually (Beck and Ajzen, 1991; Sheerhan and Orbell, 1999).

Interventions that specify formal periods of interaction with residents could be considered to function as a behavioural plan by disrupting automatic interaction patterns and providing carers with clear environmental cues indicating how they should interact with residents. As Salmon (1993) found however, changes in care behaviour tend to be restricted to the specific environmental cues provided (i.e. a formal Reality Orientation session).

One potential approach might be to help carers plan for the conditions under which they intend to provide 1:1 care. This approach could be implemented early in each carer's employment, with the support of home managers, through a formal induction programme. This could prevent habitually low levels of 1:1 care from developing and may facilitate a gradual change in the implicit organisational values with regard to 1:1 care.

4.5.3 Reinforcement schedules

From a behavioural perspective, behaviours which elicit a positive experience or the lack of a negative experience will be 'positively reinforced' and are therefore likely to be repeated. It is suggested that completion of a tangible, measurable goal such as a domestic task which produces immediate effects is likely to be more reinforcing than the ambiguous and often invisible task of 1:1 care. Previous literature and qualitative comments in the current study indicate that the reactions of colleagues may reinforce the completion of institution focused tasks. Matthew's, Farrell and Blackmore (1996) for instance, found that the altered care practices that followed training in individualised care were abandoned when the afternoon shift complained that the

individualised routines left too many chores to be completed in the afternoon (thereby negatively reinforcing the new behaviour).

One possible implication would be to introduce a feedback system within the organisation that is reinforcing of individualised care. Barnett (1995) for instance, reports on the use of Dementia Care Mapping to provide immediate feedback to carers on the level of individualised care being provided per shift, resulting in an increase in observed levels of positive staff-resident interaction.

The Homes Inspectorate, the official body monitoring the standards of care within residential homes, typically emphasises the more tangible, physical aspects of care. By emphasising the psychosocial aspects of care more explicitly in their assessment criteria, they could provide managers with powerful and specific reinforcement for the provision of 1:1 care.

4.5.4 Staffing strategies

It could be argued that increasing staffing levels would impact upon many of the perceived barriers identified within the measure of indirect perceived behavioural control. However, as previously discussed, other studies have shown that staff:resident ratio is not necessarily predictive of care behaviour (Sixsmith et al, 1993; Flecknoe, 1998).

However, these previous studies looked at optimum levels of staffing while the respondents in the present study complained of being *understaffed*. It is possible that

staff:resident ratio may be more predictive of care behaviour in situations where staffing level is sub-optimal. In such situations, addressing staffing levels directly, *in conjunction* with additional training and supervision may be most helpful. In retrospect, it would have been helpful to ask managers to comment on the extent to which their staffing targets were met.

4.5.5 Role clarity

An alternative staffing implication may be to increase role clarity by differentiating between staff members responsible for institutional needs such as cleaning, and those responsible for attending to residents' psychosocial needs. Formal acknowledgement of the relevance of 1:1 care to their job role may improve perceived behavioural control and reduce guilt regarding the impact upon colleagues' work loads.

Morgan and Stewart (1997), for instance reported on an organisation that identified one post responsible for ensuring psychosocial needs were met and highlighted the negative impact upon interaction levels once the post was cut. Allen and Turner (1991) found similar problems when 'specialist' carers were recruited for the duration of a study to provide 1:1 care. The full time carers responded by reducing the amount of time they spent in contact with residents, as they no longer perceived it to be part of their work role. Clarifying the inclusion of psychosocial care in a carers' work role may therefore help increase care provision.

4.5.6 Involvement in decision making

Although involvement in decision making was not directly predictive of intention to provide 1:1 care, it was strongly associated with perceived behavioural control which was, in turn, predictive of intention. Previous literature has found perceived involvement to be consistently associated with high job satisfaction and performance (Spector 1986). Carers' perceived involvement might be increased by including them in care planning and review meetings and organisational matters such as the development of rotas or the allocation of resources.

4.5.7 Resident ability level

The finding of less intention to provide 1:1 care to less able residents is concerning given the heightened levels of dependency within residential homes in recent years (Neville, et al, 1995) and the increased need these residents have for facilitated communication (Kitwood, 1997). Further exploration is required to identify the barriers to 1:1 care specific to lower functioning residents. Given the potential barriers (discussed in section 4.3) of insufficient time, emotional strain and lack of awareness, interventions to increase staffing levels, provide emotional support and educate and train with regard to communicative techniques for less able clients, could be implemented.

4.5.8 Implications for clinical psychologists

Clinical psychologists may find themselves wishing to promote individualised care when consulted by residential homes about the prevention and management of emotional distress and challenging behaviour (Moniz-Cook et al, 2001; Stokes, 1996).

The findings from the current study highlight the importance of working within carers' perceptions of the barriers to 1:1 care. The tendency for carers to perceive barriers external to themselves may, for instance, need particular attention before any change can be implemented.

A cognitive-behavioural approach might be useful here, taking a collaborative, empirical stance to the perceived barriers to 1:1 care, including the use of behavioural experiments to test out assumptions held regarding the nature and effect of these barriers (Hawton, Salkovskis, Kirk & Clark, 1989). Additionally, within the same collaborative engagement, a problem-solving approach could also be taken to address perceived barriers (Hawton and Kirk, 1989).

4.6 Further research

The study raises several issues that might usefully be pursued through further research. Regarding the provision of 1:1 care within residential settings for instance, intervention studies manipulating an aspect of perceived behavioural control, such as staff numbers, could be assessed for their impact upon levels of 1:1 care.

It would be helpful to clarify whether the relatively large amount of variance unaccounted for and the residual predictive ability of past behaviour, are attributable to a major predictor variable that is unaccounted for, or to the habitual nature of 1:1 care.

Future research could use qualitative approaches to look for alternative predictors and incorporate them in an analysis of decision making using the theory of planned

behaviour. In addition, the role of resident ability and managerial approach could be further investigated using more sensitive and methodologically rigorous assessment procedures.

The possible habitual basis of 1:1 care could be explored using experimental intervention designs looking at the impact of behavioural plans to provide 1:1 care upon levels of 1:1 care in comparison with a control group. Alternatively, the key environmental cues associated with the provision of 1:1 care could be identified by systematically altering aspects of the environment, such as the number of tasks to do, residents to oversee etc.

The finding that carers are less likely to provide 1:1 care to lower ability residents has important clinical implications that require further investigation. Intervention studies could compare control groups of carers working with lower ability residents with experimental groups receiving interventions addressing the barriers identified in the current study (i.e. increased staffing, clarification of work role, training, support and supervision).

While previous studies were improved upon by including a self-report measure of actual behaviour in the present study, observational measures would nonetheless add to the validity of the findings. Dementia care mapping (Kitwood and Bredin, 1992) could be used as an outcome measure to assess the impact on care provision of the interventions outlined above, or as a means of providing clear, immediate feedback to carers.

4.7 Conclusions

In sum, the main conclusions to be drawn from the present study are as follows:

- Residential carers report intending to provide 27 to 45 minutes of 1:1 care per shift to elderly residents.
- Perceived behavioural control significantly predicted intention to provide 1:1 care, which in turn predicted actual behaviour.
- Attitude and subjective norm were not predictive of intention to provide 1:1 care.
- Carers reported feeling less able to provide 1:1 care to lower functioning residents (although methodological difficulties limit the confidence with which conclusions can be drawn).
- The theory of planned behaviour provided a useful framework for examining the provision of 1:1 care, although its application was complicated by the repetitive, and potentially habitual, nature of the behaviour.
- The belief-based nature of the constructs within the theory was supported and satisfactory internal and test retest reliability figures were reported.
- Clinical interventions that aim to empower carers might include reviewing staffing levels, establishing ongoing reinforcement schedules and providing clear environmental cues in order to disrupt habitual responses.
- Potential avenues for further research involve the role of resident ability; the impact of interventions addressing perceived behavioural control and the relationship between past behaviour and behavioural plan.

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APPENDICES

- APPENDIX A Behaviour Rating Scale
- APPENDIX B Policy and Program Information Form
- APPENDIX C Perceived Involvement Personal Questionnaire
- APPENDIX D Behavioural Intention Scale Pilot Survey
- APPENDIX E Information sheets
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APPENDIX A : BEHAVIOUR RATING SCALE

PLEASE COMPLETE THIS FORM FOR ONE RESIDENT YOU ARE A KEY-WORKER FOR.
PLEASE DO NOT IDENTIFY THE RESIDENT ON THE FORM.

CLIFTON ASSESSMENT PROCEDURES FOR THE ELDERLY (CAPE)

Behaviour Rating Scale

Assign the appropriate number for each item

When bathing or dressing, he/she requires:	<ul style="list-style-type: none"> — no assistance — some assistance — maximum assistance 	0 1 2
With regard to walking, he/she:	<ul style="list-style-type: none"> — shows no signs of weakness — walks slowly without aid, or uses a stick — is unable to walk, or if able to walk, needs frame, crutches or someone by his/her side 	0 1 2
He/she is incontinent of urine and/or faeces (day or night):	<ul style="list-style-type: none"> — never — sometimes (once or twice per week) — frequently (3 times per week or more) 	0 1 2
He/she is in bed during the day (bed does not include couch, settee, etc):	<ul style="list-style-type: none"> — never — sometimes — almost always 	0 1 2
He/she is confused (unable to find way around, loses possessions, etc):	<ul style="list-style-type: none"> — almost never confused — sometimes confused — almost always confused 	0 1 2
6. When left to his/her own devices, his/her appearance (clothes and/or hair) is:	<ul style="list-style-type: none"> — almost never disorderly — sometimes disorderly — almost always disorderly 	0 1 2
7. If allowed outside, he/she would:	<ul style="list-style-type: none"> — never need supervision — sometimes need supervision — always need supervision 	0 1 2
8. He/she helps out in the home/ward:	<ul style="list-style-type: none"> — often helps out — sometimes helps out — never helps out 	0 1 2
9. He/she keeps him/herself occupied in a constructive or useful activity (works, reads, plays games, has hobbies, etc):	<ul style="list-style-type: none"> — almost always occupied — sometimes occupied — almost never occupied 	0 1 2
10. He/she socialises with others:	<ul style="list-style-type: none"> — does establish a good relationship with others — has some difficulty establishing good relationships — has a great deal of difficulty establishing good relationships 	0 1 2
11. He/she is willing to do things suggested or asked of him/her:	<ul style="list-style-type: none"> — often goes along — sometimes goes along — almost never goes along 	0 1 2

APPENDIX B: POLICY AND PRACTICE INFORMATION FORM

Please answer the following questions about the residential home you manage. These items are part of a larger questionnaire, so the numbering of questions may not always be sequential.

Section II: Types of Rooms and Features Available

1. If this facility is divided into rooms or dormitories, please answer the following questions:
 - 1a. What is the total number of rooms for residents? .. 24-26
 - 1b. How many private rooms are there? ..
 - 1c. How many rooms are there with two residents?
 - 1d. How many rooms are there with three residents? .. 33-35
 - 1e. How many rooms are there with four or more residents? ..
 - 1f. What is the largest number of residents who share one room of dormitory unit? .. 42-44
 - 1g. How many private bathrooms are there? ..
 - 1h. How many bathrooms are shared by two residents? ..
 - 1i. How many bathrooms are shared by three or more residents? ..
 - 1j. What is the largest number of residents who share one bathroom area? .. 51-53

2. If this facility is divided into apartments:
 - 2a. How many apartments are there for residents? ..
 - 2b. How many studio apartments are there? ..
 - 2c. How many one-bedroom apartments are there? 60-62
 - 2d. How many two-bedroom apartments are there?
3. For all facilities:
 - 3a. Are there furnished rooms or apartments? 1 Yes No 66 2 Yes No 66
 - 3b. Do residents have their own individual mailboxes? Yes No
 - 3c. Is there a dresser for each person? Yes No
 - 3d. Are there locks on all bathroom doors? Yes No 69
4. Must a prospective resident be ambulatory? Yes No (Please circle as appropriate)

1. Which of the following best describes the ownership and management of the facility?

- 1 Individual or partnership
- 2 Nonprofit organization
- 3 Government or public
- 4 Large corporation
- 5 Small corporation
- 6 Management company
- 7 Other (please specify) _____ 1 2 Yes No 2

2. Does this facility have a board of directors? ..

- 2a. If so, how many members are on the board? .. 3-4

2b. How often does the board meet?

- 1 Once a month or more
- 2 Quarterly or bimonthly
- 3 Once or twice a year or less

3. If there is a board of directors, does it have a say in any of the approaches used or the activities provided in the facility? ..

- Yes No 6

4. Do some of the staff, other than the administrator, regularly attend board meetings? ..

- Yes No

5. Is there a handbook for residents (e.g., rules, medical procedures, etc.)? ..

- Yes No

6. Is there a handbook for staff (e.g., policies, operating procedures, and treatment approaches)? ..

- Yes No

7. Does the facility have an orientation program for new residents? ..

- Yes No

8. Is there an orientation program for new staff? .. 1 Yes No 11

9. Are there formal staff meetings? ..

- Yes No 12

9a. If so, how often?

- 1 Once a week or more
- 2 Once or twice a month
- 3 Less than once a month
- 4 Only when needed

10. Are there volunteers who help out in the facility? .. Yes No 13

For Parts III and IV, please use the following categories to describe the facility's policies with respect to these behaviors and activities:

- 1. Allowed— this kind of behavior is expected; no special attempt is made to change it.
- 2. Tolerated— this kind of behavior is expected, but an effort is made to encourage the individual to function better or more appropriately.
- 3. Discouraged— an attempt is made to discourage or to try to stop this behavior.
- 4. Intolerable— a person who persisted in this type of behavior would probably have to move out.

Part III: Expectations Relating to Level of Functional Ability

	Allowed	Tolerated	Discouraged	Intolerable
1. Inability to make one's own bed.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Inability to clean one's own room.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Inability to feed oneself.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Inability to bathe or clean oneself.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Inability to dress oneself.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Incontinence (of urine or feces).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Confusion or disorientation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Depression (i.e., frequent crying or sadness).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part II: Rules Related to Personal Possessions and Behaviors

This section includes questions about the rules and expectations for residents. Check the boxes that best describe the policies and procedures in this facility. The following categories are used for Part II.

- 1. Encouraged —this kind of behavior or activity is encouraged here.
- 2. Allowed —this kind of behavior is expected; no special attempt is made to change it.
- 3. Discouraged —an attempt is made to discourage or to try to stop this behavior.
- 4. Intolerable —a person who persisted in this type of behavior would probably have to move out.

	Encouraged	Allowed	Discouraged	Intolerable
1. Drinking liquor in one's room.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 16
2. Having one's own furniture in the room.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Moving furniture around the room.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Keeping a fish or bird in the room.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Keeping a hot plate or coffee maker in the room.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 20
6. Doing some laundry in the bathroom (e.g., washing socks or underwear).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Drinking a glass of wine or beer at meals.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Skipping breakfast to sleep late.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Closing the door to one's room.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Locking the door to one's room.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 25

Part IV: Rules Related to Potential "Problem" Behaviors

	Allowed	Tolerated	Discouraged	Intolerable
	1	2	3	4
1. Refusing to participate in programmed activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 1
2. Refusing to take prescribed medicine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 1
3. Taking medicine other than that which is prescribed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Taking too much medicine, intentionally or otherwise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Being drunk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 5
6. Wandering around the building or grounds at night	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Leaving the building during the evening without letting anyone know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Refusing to bathe or clean oneself regularly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Creating a disturbance; being noisy or boisterous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Pilfering or stealing others' belongings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 10
11. Damaging or destroying property (e.g., tearing books or magazines) ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Verbally threatening another resident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Physically attacking another resident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Physically attacking a staff member	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 15
15. Attempting suicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 16
16. Indecently exposing self	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. Are any of the residents within the facility? Yes No
2. Do any of the residents have other types of chores or duties (unpaid) that they perform here? Yes No
 - 2a. If so, how many residents participate?
3. Is there a residents' council (i.e., residents who are elected or volunteer to represent residents at regularly scheduled meetings)? Yes No
 - 3a. If so, how many residents are on it?
 - 3b. How often does it meet?
 - 1 Once a week or more
 - 2 Twice a month
 - 3 Once a month, or less
4. Are there regular "house meetings" for residents (a general meeting open to all residents)? Yes No
 - 4a. If so, how often do they occur?
 - 1 Twice a month or more
 - 2 Once a month
 - 3 Less than once a month
 - 4 Only when needed Yes No:
5. Are there resident committees (or committees that include residents as members)? Yes No 27
 - 5a. If so, list the most important committees, the number of residents on each, and how often they meet.
6. Is there a newsletter? Yes No 43
 - 6a. If so, how often is it printed?
 - 1 Once a week or more
 - 2 Twice a month
 - 3 Once a month
 - 4 Less than once a month
- 6b. If so, is it primarily written by residents? Yes No 50
7. Is there a bulletin board? Yes No
 - 7a. If so, is it being used by residents? Yes No
 - 7b. Are rules and regulations posted on the bulletin board or in another convenient public location? Yes No 51

Part VI: Decision Making

To what extent are residents involved in policy making in the following areas?

	Staff administration basically decide by themselves	Staff administration decide but residents have input	Residents decide but staff has input	Residents basically decide by themselves
	1	2	3	4
1. Planning entertainment such as movies or parties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 54
2. Planning educational activities such as courses and lectures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Planning welcoming or orientation activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Deciding what kinds of new activities or programs will occur	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Making rules about attendance at activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Planning daily or weekly menus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 60
7. Setting mealtimes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Setting visitors' hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Deciding on the decor of public areas (e.g., pictures, plants, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Dealing with safety hazards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Dealing with residents' complaints	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Making rules about the use of alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 65
13. Selecting new residents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Moving a resident from one bed or room to another	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Deciding when a troublesome or sick resident will be asked to leave ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Changes in staff (hiring or firing) ..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 69

1. Is breakfast served each day? Yes No M-F only ¹
- 1a. What hours is breakfast served? ²
- 1b. How many residents use this service on a typical day? ³⁻⁴
2. Is lunch served each day? Yes No M-F only ⁵
- 2a. What hours is lunch served? ⁶
- 2b. How many residents use this service on a typical day? ⁷⁻⁸
3. Is dinner served each day? Yes No M-F only ⁹
- 3a. What hours is dinner served? ¹⁰
- 3b. How many residents use this service on a typical day? ¹¹⁻¹²
4. Are snacks served in the afternoon or evening? Yes No ¹³
- 4a. How many residents use this service on a typical day? ¹⁴⁻¹⁵
5. Can residents choose to sit wherever they want at meals? Yes No
6. Does a staff member take attendance or count residents at mealtimes? Yes No
7. Is there a fairly set time at which residents are awakened in the morning? Yes No ¹⁸
- 7a. If so, what time?
 - 1 Before 7:00
 - 2 Between 7:00 and 8:00
 - 3 Between 8:00 and 9:00
 - 4 9:00 or later
8. Are there certain times during which residents are expected to take baths or showers? Yes No ²⁰
9. Is there a fairly set time at which residents are expected to go to bed (lights out) at night? Yes No
 - 1 Before 8:00
 - 2 Between 8:00 and 9:00
 - 3 Between 9:00 and 10:00
 - 4 10:00 or later
10. Is there a "curfew" (i.e., a time by which all residents must be in the facility in the evening)? .. Yes No
 - 10a. If so, what time?
 - 1 Before 9:00
 - 2 Between 9:00 and 10:00
 - 3 Between 10:00 and 11:00

APPENDIX D : BEHAVIOURAL INTENTION SCALE PILOT SURVEY

Adding together the total amount of time you spend in 1:1 care with different residents during a shift, how likely is it that over the next two weeks you will spend an average of;

1. 15 minutes or more per shift providing 1:1 care to residents?

Very Likely 1 2 3 4 5 6 7 Very Unlikely

2. 30 minutes or more per shift providing 1:1 care to residents?

Very Likely 1 2 3 4 5 6 7 Very Unlikely

3. 45 minutes or more per shift providing 1:1 care to residents?

Very Likely 1 2 3 4 5 6 7 Very Unlikely

4. 60 minutes or more per shift providing 1:1 care to residents?

Very Likely 1 2 3 4 5 6 7 Very Unlikely

5. 1 ½ hours or more per shift providing 1:1 care to residents?

Very Likely 1 2 3 4 5 6 7 Very Unlikely

6. 2 hours or more per shift providing 1:1 care to residents?

Very Likely 1 2 3 4 5 6 7 Very Unlikely

7. 2 ½ hours or more per shift providing 1:1 care to residents?

Very Likely 1 2 3 4 5 6 7 Very Unlikely

8. 3 hours or more per shift providing 1:1 care to residents?

Very Likely 1 2 3 4 5 6 7 Very Unlikely

Thank you for taking the time to complete this questionnaire. Your help is very much appreciated.

Please feel free to contact me, Rebecca Rollinson, at The Isis Education Centre, Warneford
 01265 226431. if you have any queries about the project at all.

APPENDIX E : STRUCTURE OF INFORMATION SHEETS

Interview Information sheet

- Background details on the aim of the study.
- Definition of 1:1 care.
- Role of the interviews in the development of the theory of planned behaviour questionnaire.
- Outline confidentiality and voluntary nature of study.
- Contact information.

Main questionnaire survey information sheet

- Background details on the aim of the study.
- Definition of 1:1 care.
- Outline of procedure of completing questionnaires and recruiting for re-tests.
- Outline of confidentiality and voluntary nature of study.
- Inform that summary report available once study complete.
- Contact information

Residential home manager's information sheet

- Background details on the aim of the study.
- Possible professional applications of the findings.
- Purpose of the home manager's questionnaire.
- Outline confidentiality and voluntary nature of study.
- Explanation of discontinuity in question numbering (as selected sub-scales from a larger questionnaire).
- Contact information

Re-test information sheet

This was presented in the form of a letter to the named carer who had volunteered to be contacted regarding a retest.

- Thanked for completing original questionnaire and agreeing to be re-contacted.
- Reminder of aim of study.
- Role of re-test in testing the 'trustworthiness' of the questionnaire.
- Collection arrangements.
- Request to complete specific questionnaire in order to allow it to be compared with previous responses.

APPENDIX F: SAMPLE CONSENT FORM

Oxford Doctoral Course in Clinical Psychology

Education Centre • Warneford Hospital • Headington • Oxford OX3 7JX •
Tel: 01865 226431/226374 • Fax: 01865 226364 • e-mail: maxine.pribyl@oxmhc-tr.anglox.nhs.uk •

INVESTIGATION INTO THE DECISION TO PROVIDE 1:1 CARE

CONSENT FORM FOR THE AUDIOTAPING OF INTERVIEWS.

This interview is a part of a larger study looking in to how residential carers decide to spend their time during a shift. In particular, the study is looking at the things that influence the amount of time carers spend providing '1:1' care.

I will be interviewing several carers and will be using their comments to make a questionnaire. This will be sent to all the residential carers working in Freemantle homes for the elderly in the region. Great care will be taken to anonymise all of your comments. That is, nobody will be able to identify your comments within the final questionnaire.

After our interview, I will write up our conversation in such a way that you will not be identifiable from the written transcript. The audio tape of our conversation will then be destroyed.

I _____ (please print name)

hereby consent for Rebecca Rollinson to make an audio recording of our conversation.

- I have read the information sheet explaining the nature of the study
- I understand that the audio recording of our conversation will be written up in a way that will mean I will not be identifiable from the written transcript.
- I also understand that once a written version is made of the interview, the audio cassette will be destroyed.
- I understand that I am free to end the interview at any point should I so wish.

Signed _____

Date _____

APPENDIX G. SUMMARY OF INTERVIEW STRUCTURE

Interview questions

1. Warm up and familiarisation with definition of 1:1

Perceived behavioural control

- 2a) What sort of things might help you spend an average of 45 minutes per shift providing 1:1 care to clients in the next two weeks?
- 2b) What kind of things might prevent you spending an average of 45 minutes per shift providing 1:1 care to clients in the next two weeks?

Subjective norm

- 3a) Which groups of people or individuals might approve of you spending an average of 45 minutes per shift providing 1:1 care to clients in the next two weeks?
- 3b) Which groups of people or individuals might disapprove of spending an average of 45 minutes per shift providing 1:1 care to clients in the next two weeks?

Attitude

- 4a) What do you see as the advantages of spending 45 minutes per shift providing 1:1 care to clients in the next two weeks?
- 4b) What do you see as the disadvantages of spending 45 minutes per shift providing 1:1 care to clients in the next two weeks?

Debrief

- 5a) Are there any issues around 1:1 care that weren't raised but that you would like to mention?
- 5b) Do you have any questions about the interview or the study?

APPENDIX H : THEORY OF PLANNED BEHAVIOUR QUESTIONNAIRE

IMPORTANT!! PLEASE READ CAREFULLY.

The term '1:1 care' can mean a lot of different activities. It is very important that everybody who answers the questionnaires is talking about the same activity. Please read the following definition of 1:1 care very carefully and answer the questions that follow on it.

DEFINITION OF 1:1 CARE

- Something that is provided separately to personal care.
- An interaction involving one member of staff and one resident.
- The member of staff has some choice over whether or not to spend this time with the resident (i.e. it is not on your list of duties for that shift).
- The activity is resident led - that is, it involves pursuing *their* interests rather than the staff member's.
- The resident is thought to be receiving some benefit from it and welcoming the interaction.
- The interaction goes beyond a courteous greeting or answering a one-off question.

Note that although the way you provide personal care is a vital part of good quality care, that is **NOT** what this study is looking at.

**THIS STUDY IS ONLY CONCERNED WITH 1:1 CARE THAT IS GIVEN
SEPARATELY TO PERSONAL CARE.**

This WOULD be 1:1 care in this study:	This would NOT be 1:1 care in this study:
✓ Sitting having a conversation with a resident about something that they are interested in	✗ Chatting to a resident while <u>taking them to the bathroom</u>
✓ Helping the resident in an activity they are interested in	✗ Taking care to be respectful while you help somebody <u>eat their dinner</u>
✓ Listening to and soothing a resident who is upset	✗ Making a resident take part in something they do not want to do.

Instruction sheet for questionnaire one.

In this first questionnaire, most of the questions ask you to answer by circling a number on a scale from 1 to 7. Please circle the number that best describes your opinion.

For example, a question might ask;

“How likely is it that you will drive home after work?”

If you thought it was *very likely*, you would circle the number 1;

Very Likely (1) 2 3 4 5 6 7 Very Unlikely

If you thought it was *slightly unlikely*, you might circle number 5;

Very Likely 1 2 3 4 (5) 6 7 Very Unlikely

If you were *neutral* about it, you didn't have a strong opinion one way or the other, you might circle number 4.

Very Likely 1 2 3 (4) 5 6 7 Very Unlikely

- Please answer all of the questions.
- Don't spend too long thinking about each question- often your first answer is the most accurate.
- There are no right answers to any of these questions, so please answer as honestly as you can, based on your actual experience of caring, rather than your ideal.
- Some of the questions might seem repetitive or long winded. This is because the questionnaire is written according to theoretical guidelines that insist the questions are asked in this way.
- If you have any problems filling in the questionnaire, please call either of the researchers who will be happy to assist you.

Thank you once again for your time and assistance.

These questions describe five situations that you might find yourself in. Could you please show whether you think each situation would fit the definition of 1:1 care given on the previous page. Circle 'Yes' if you think the situation fits the definition, or "No" if it doesn't.

	Does this fit the definition of 1:1 care used in this study?
A. Mrs Adams, an 82-year-old lady, calls to you across the day room while you are polishing the cabinets and asks if she can talk to you in private. You haven't finished doing the polishing yet, but find a room to talk with her in, and return to the polishing later.	Yes / No
B. As you are helping Mr Taylor get dressed, you chat with him about what clothes he would like to wear, and what he would like for breakfast.	Yes / No
C. The sun is shining brightly outside and you have been cooped up doing paperwork all day and would love to get some fresh air. You approach Mrs Wilson, who is happily doing some sewing in her wheelchair in the lounge, and push her around the garden. Mrs Wilson grumbles all the way around.	Yes / No
D. You have just had your lunch and your favourite soap opera is on. Mrs Rose is sat reading on the sofa, so you turn the television on, sit next to her and watch your soap opera.	Yes / No
E. Mr Jones has dementia and cannot speak. While you are doing some paperwork, you notice him rocking and groaning. You leave the paperwork and sit down with him and stroke his hand. He seems to find this comforting and gradually settles down again.	Yes / No

Before you carry on, check if your answers are right.
The correct answers are given at the very back of the survey.

Questionnaire One

This questionnaire repeatedly asks you about the things that might affect the likelihood of you providing “over the next two weeks, an average of 45 minutes or more per shift providing 1:1 care to residents”.

It will make the questionnaire a lot easier and faster for you to complete if you take a minute to think about what this description means to you.

Please note that it does NOT mean one 45 minute long session of 1:1. It means, 45 minutes, when you add up all the bits of time over a shift where you have provided 1:1 to different residents.

Section One: What makes it difficult to provide 1:1?

This first section asks about things that might make it easier or harder for you to provide an average of 45 minutes of 1:1 care per shift.

A. Please answer these general questions.

1) If I wanted to, I could easily spend, over the next two weeks, an average of 45 minutes or more per shift providing 1:1 care to residents...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

2) I have complete control over whether or not, over the next two weeks, I spend an average of 45 minutes or more per shift providing 1:1 care to residents ...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

3) I feel completely confident that I could, over the next two weeks, spend an average of 45 minutes or more per shift providing 1:1 care to residents...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

3b) If I spent, over the next two weeks, an average of 45 minutes or more per shift providing 1:1 care to residents, I would find it...

Extremely 1 2 3 4 5 6 7 Extremely
easy difficult

B. Please rate how often, on average, the following are likely to occur during shifts in the next two weeks:

4) I would be working with a lower functioning client group that require careful monitoring and are highly dependent upon me.

Very often 1 2 3 4 5 6 7 Not at all often

5) There are enough staff on duty to allow me to spend time in 1:1 with residents.

Very often 1 2 3 4 5 6 7 Not at all often

6) I have essential domestic and personal care tasks that have to be done that shift.

Very often 1 2 3 4 5 6 7 Not at all often

7) A resident seems low or upset.

Very often 1 2 3 4 5 6 7 Not at all often

8) I feel pressured to get things done on time.

Very often 1 2 3 4 5 6 7 Not at all often

9) Time and resources are made available to spend time in 1:1 with residents.

Very often 1 2 3 4 5 6 7 Not at all often

10) A resident shows that they are pleased for me to be with them.

Very often 1 2 3 4 5 6 7 Not at all often

11) I find it difficult to communicate with residents.

Very often 1 2 3 4 5 6 7 Not at all often

12) I feel tired and under the weather.

Very often 1 2 3 4 5 6 7 Not at all often

C. Please rate how much *easier or harder* the following factors would make it for you to spend, over the next two weeks, an average of 45 minutes or more per shift providing 1:1 care to residents. (Remember, that is not a single 45 minutes long session of 1:1, but 45 minutes when you add up all the time spent with different residents over a shift).

13) Working with a lower functioning client group that require careful monitoring and are highly dependent upon me would make this...

Much easier 1 2 3 4 5 6 7 Much harder

14) Having enough staff on duty to allow me to spend time in 1:1 with residents would make this ...

Much easier 1 2 3 4 5 6 7 Much harder

15) Having essential domestic and personal care tasks that have to be done that shift would make this...

Much easier 1 2 3 4 5 6 7 Much harder

16) A resident seeming low or upset would make this...

Much easier 1 2 3 4 5 6 7 Much harder

17) Feeling pressured to get things done on time would make this ...

Much easier 1 2 3 4 5 6 7 Much harder

18) Having time and resources made available to spend time in 1:1 with residents would make this...

Much easier 1 2 3 4 5 6 7 Much harder

19) A resident showing that they are pleased for me to be with them would make this...

Much easier 1 2 3 4 5 6 7 Much harder

20) Finding it difficult to communicate with residents would make this...

Much easier 1 2 3 4 5 6 7 Much harder

21) Feeling tired and under the weather would make this...

Much easier 1 2 3 4 5 6 7 Much harder

Section Two: Opinions of others

In this section, we are interested to find out how you think other people feel about you providing 1:1 care to residents.

A. Listed below are groups of people that you may come in to contact with. Please indicate how you think these people feel about you spending, over the next two weeks, an average of 45 minutes or more per shift providing 1:1 care to residents?

22) The residents I work with think I should do this...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

23) Other care staff I work with think I should do this...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

24) The families of the residents I work with think I should do this...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

25) The management think I should do this...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

26) The people most important to me think I should do this...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

27) The management think I should as long as the other chores are complete...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

28) My team leader thinks I should do this...

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

B. The same groups of people are listed below. Now I would like to know how likely you are to do what they think you should do.

29) I want to do what the residents I work with think I should do...

Very much 1 2 3 4 5 6 7 Not at all

30) I want to do what the other care staff I work with think I should do...

Very much 1 2 3 4 5 6 7 Not at all

31) I want to do what the families of the residents I work with think I should do...

Very much 1 2 3 4 5 6 7 Not at all

32) I want to do what the management think I should do...

Very much 1 2 3 4 5 6 7 Not at all

33) I want to do what the people important to me think I should do...

Very much 1 2 3 4 5 6 7 Not at all

34) I want to do what my team leader thinks I should do...

Very much 1 2 3 4 5 6 7 Not at all

Section Three: Your opinions about 1:1 care

In this section, we are interested in finding out what you think about 1:1 care in general.

A. Please answer the following general questions:

35) I think that spending, over the next two weeks, an average of 45 minutes or more per shift providing 1:1 care to residents would be ... (please circle one number per question).

- | | | | | | | | |
|----|---------------------------|-----------------------|--------------------------|-------------------------------|----------------------------|-------------------------|-----------------------------|
| a) | 1
Extremely enjoyable | 2
Quite enjoyable | 3
Slightly enjoyable | 4
Neither one or the other | 5
Slightly unpleasant | 6
Quite unpleasant | 7
Extremely unpleasant |
| b) | 1
Extremely valuable | 2
Quite valuable | 3
Slightly valuable | 4
Neither one or the other | 5
Slightly worthless | 6
Quite worthless | 7
Extremely worthless |
| c) | 1
Extremely beneficial | 2
Quite beneficial | 3
Slightly beneficial | 4
Neither one or the other | 5
Slightly harmful | 6
Quite harmful | 7
Extremely harmful |
| d) | 1
Extremely satisfying | 2
Quite satisfying | 3
Slightly satisfying | 4
Neither one or the other | 5
Slightly unsatisfying | 6
Quite unsatisfying | 7
Extremely unsatisfying |
| e) | 1
Extremely good | 2
Quite good | 3
Slightly good | 4
Neither one or the other | 5
Slightly bad | 6
Quite bad | 7
Extremely bad |
| f) | 1
Extremely rewarding | 2
Quite rewarding | 3
Slightly rewarding | 4
Neither one or the other | 5
Slightly unrewarding | 6
Quite unrewarding | 7
Extremely unrewarding |

B. Listed below are a number of possible consequences of you spending, over the next two weeks, an average of 45 minutes per shift providing 1:1 care to residents. Please rate how desirable each of them are to you.

36) Making my job more enjoyable and rewarding is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

37) Developing a closer relationship with residents is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

38) Reducing residents' emotional distress is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

39) Residents adjusting to residential care and other stresses is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

40) Developing a closer relationship with the families of residents is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

41) Other residents feeling neglected is...

1	2	3	4	5	6	7
Extremely undesirable	Quite undesirable	Slightly undesirable	Neither one or the other	Slightly desirable	Quite desirable	Extremely desirable

42) Using your understanding of the resident to meet their individual needs is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

43) Keeping residents stimulated is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

44) Reducing disruptive behaviour in residents is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

45) Providing residents with a person they can trust is...

1	2	3	4	5	6	7
Extremely desirable	Quite desirable	Slightly desirable	Neither one or the other	Slightly undesirable	Quite undesirable	Extremely undesirable

C. Please rate how likely you think it is that each of the following would occur as a consequence of you spending, over the next two weeks, an average of 45 minutes per shift providing 1:1 care to residents (remember, this is 45 minutes when you add up all the time you spend with different residents at different times, *not* in a single session).

46) My job would be more enjoyable and rewarding.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

47) I would develop a closer relationship with the residents I spent 1:1 time with.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

48) It would reduce the emotional distress of the residents I spent 1:1 time with.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

49) It would help the residents I spent 1:1 time with adjust to residential care and other stresses.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

50) I would develop a closer relationship with the families of residents I spent 1:1 time with.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

51) Other residents might feel neglected.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

52) I would be able to use my understanding of the residents I spent 1:1 time with to meet their individual needs.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

53) It would keep the residents I spent 1:1 time with stimulated.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

54) It would reduce the disruptive behaviour of the residents I spent 1:1 time with.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

55) It would provide the residents I spent 1:1 time with, with a person they could trust.

1	2	3	4	5	6	7
Highly likely	Quite likely	Slightly likely	Neither likely or unlikely	Slightly unlikely	Quite unlikely	Highly unlikely

Section Four: Future behaviour.

56. Adding together the total amount of time you spend in 1:1 care with different residents during a shift, **how likely** is it that, over **the next two weeks**, you will spend an average of 45 minutes or more per shift providing 1:1 care to residents?

Highly likely 1 2 3 4 5 6 7 Highly unlikely

57. How clear an idea do you have about **how** you might spend, over the next two weeks, an average of 45 minutes or more per shift providing 1:1 care to residents?

Very clear 1 2 3 4 5 6 7 Not at all clear

58. Adding together the total amount of time you spend in 1:1 care with different residents during a shift, how many minutes, on average, do you think you will spend per shift providing 1:1 care to residents over the next two weeks?

Answer: _____ minutes per shift.

Section Five: Past behaviour.

59. Adding together the total amount of time you spend in 1:1 care with different residents during a shift, how likely is it that, over the **last two weeks**, you have spent an average of 45 minutes or more per shift providing 1:1 care to residents?

Highly likely 1 2 3 4 5 6 7 Highly unlikely

~~60. Adding together the total amount of time you spend in 1:1 care with different residents during a shift, how many minutes per shift do you think you have spent, on average over the last two weeks, providing 1:1 care to residents?~~

Answer: _____ minutes per shift.

Section Six: Further information

Other research often shows that there are important differences between the way people think about their work, depending on their gender, their age, the amount of training they have had and the amount of time they have been in the job. It would therefore help us to make more use of the findings if you could fill in the following four questions about yourself. Like the rest of the questionnaire, your responses will remain confidential.

61. Are you male or female (please circle correct answer).

62. For approximately how long have you worked with older adults? _____

63. Have you got a qualification in caring? (e.g. NVQ level 2 or 3) Yes / No

64. How old are you? (Please tick correct box.)

20 or under-----	<input type="checkbox"/>	1
21-29-----	<input type="checkbox"/>	2
30-39-----	<input type="checkbox"/>	3
40-49-----	<input type="checkbox"/>	4
50-59-----	<input type="checkbox"/>	5
60 or above-----	<input type="checkbox"/>	6

65. Date of completing the questionnaire ___/___/20___

The overall aim of this study is to help managers make it easier for care staff to provide 1:1 care. If the findings are to have any effect though, we have to show that the questionnaire is statistically reliable. If we can't, then the results won't be trustworthy and will have little impact upon management practices.

An important test of reliability is to see how responses change over time. This is why I am asking you to complete this questionnaire on 1:1 care again in two weeks.

If you are happy to be re-contacted in a fortnight, then please write your name, contact telephone number and address in the space below. This information will remain confidential and will not be used for any other purpose.

Thank you very much.

Name, address and telephone number (optional)

**This is the end of the questionnaire.
Thank you very much for taking the time to complete it.**

Please seal your completed questionnaires in the addressed envelope provided and place in the collection box (ask your home manager for further details). I will return to collect completed questionnaires at an agreed date.

If you have any questions at all, or wish to discuss any issues arising from completing the questionnaires, please feel free to contact either of the researchers:

CONTACT INFORMATION INSERTED HERE

Comments:

(On the questionnaire itself/ On the issue of 1:1 care/ any important points the questionnaire didn't cover/ the way the study was carried out etc.)

APPENDIX I: CONFIRMATION OF ETHICAL APPROVAL

Dear

Re: Project NC985 - An investigation in to the factors predicting residential carers' provision of 'person centred care' to elderly residents

I refer to your application to the Local Research Ethics Committee for consideration of the above project. I am pleased to inform you that the Committee approves the project on ethical grounds on the understanding that:

- i. Any ethical problem, arising in the course of the project, will be reported to the Committee.
- ii. Any change in the protocol will be reported to the Committee.
- iii. The Data Protection Act 1984 be adhered to.
- iv. There is compliance, throughout the conduct of the study, with good clinical research practice.
- v. The Committee be informed if the research is discontinued for any reason.
- vi. A report be submitted after completion.
- vii. Ethical approval is for three years from the date of this letter

Ethical approval by the Committee is not an authority to proceed. You are advised to discuss your proposal with all heads of departments and others who might be affected, particularly if there are financial and/or staffing implications.

22 November, 2000

Dear

An Investigation into the factors predicting residential carers' provision of '1 : 1' to elderly residents

Thank you for your letter of 8 November and your telephone call of today. I am sorry to be so late in responding.

Thank you also for enclosing the final questionnaire. As indicated by , Lay Member of this Committee (to whom you spoke on the telephone) ethical approval is now granted on the basis that Dr. . . . advised me (on or about 17 October) that he was happy with your letter to him of 4th October, since it answered the Committee's concerns that they had raised on 20th September, but he asked me to send a copy to . . . to ensure that she was happy with it as well. With Dr. . . 's knowledge, I took the rather unorthodox step of asking . . . to convey the approval to you (if things were all right from her point of view), because I was away from 18 to 31 October inclusive and I was anxious that any approval was not delayed simply through my absence.

The formal position, therefore, is that approval has been given by Chairman's Action and that it should date from the receipt of the final questionnaire here with your letter. My records show that your letter was received by me on 10 November.

I should also confirm that your information about consent is perfectly acceptable. With such staff surveys, the potential compromise of confidentiality is a factor. The completion of the questionnaire can be taken as an indication of consent, since the info. sheet makes it clear that participation is entirely voluntary.

Yours sincerely

Administrator

All correspondence and enquiries should be addressed to the Secretary.
This LREC is accountable to Health Authority

Dear _____

Re: Requirements for ethical approval

Thank you for your letter of 18th July regarding your doctoral dissertation. As this is a survey of staff involving no patients, I see no reason for ethical approval to be obtained from _____ LREC. However, I would ask a question; that is, in setting up your study under the auspices of the _____ Doctoral Course, did you require ethical approval from your academic institution? I would be interested to know if that were the case.

Yours sincerely,



Chairman LREC

APPENDIX J : SUMMARY OF SECONDARY PILOT DESCRIPTIVES

Scale	Mean	Range
Direct PBC	4.96	5.5
Indirect PBC	4.09	4.83
Direct attitude	1.6	2.5
Indirect attitude	2.13	3.25
Direct subjective norm	3	5
Indirect subjective norm	2.74	5
Intention	3	6

APPENDIX K: MEAN TOTAL BRS SCORE PER HOME

Home	Mean total BRS score	Standard Deviation
H1	15.67	4.88
H2	17.33	6.47
H3	18.67	7.68
H4	15.00	0.00
H5	18.00	6.44
H6	17.00	0.00
H7	24.75	6.18
H8	11.50	3.53
H9	15.00	8.48
H10	20.20	5.17
H11	17.60	6.54
H12	17.50	9.19
H13	24.50	4.95
H14	18.20	10.01
H15	19.20	4.49
H16	18.40	5.68
H17	18.80	8.41