Evaluation of a Brief Training Programme for Nurses in Dementia Care and its Relationship to Job Satisfaction

by

Alyson Jack

ACKNOWLEDGEMENTS

Thanks are due to Prof. Mick Power, Dr. Sam Brooke, Mr. Raymond Dick, Dr. Jill Warrington, the link nurses and to all the nurses who completed the questionnaires for their various invaluable contributions to this research.
Declaration

This thesis has been completed by myself and the work contained herein is my own.

Signed
ABSTRACT

This research aimed to evaluate a brief training intervention designed for nurses working in dementia care. The content of the training material collated was in response to three main factors: 1. A local audit concerning the use of medication to treat non-cognitive symptoms of dementia. 2. A recent document produced by the SIGN Group (Scottish Intercollegiate Guidelines Network). 3. Nurses’ perceptions of their own training needs. Core topics included; a recap on dementia, non-cognitive features of dementia, drug treatments used in dementia care and psychological approaches to dementia care.

Nurses’ attitudes pre and post training, towards drug and non-drug interventions for non-cognitive symptoms of dementia were investigated using questionnaires. Attitude change and responses to a post-training evaluation form were examined in relation to reported job satisfaction.

Several demographic variables were also examined.

Data were examined across wards as well as pre and post training.

Implications for future training were discussed.
# TABLE OF CONTENTS

1.0 INTRODUCTION 7

1.1 Overview of Dementia 7

1.2 Development of the New Culture in Dementia Care 23

1.3 Models of Care for People with Dementia 25

1.4 The Aetiology of Non-cognitive Symptoms of Dementia 28

1.5 Context of the Present Study: The SIGN Guideline 33

1.6 RCH Audit 36

1.7 Training in Non-Drug Interventions 39

1.8 Mediating Factors in Response to Training 43

1.9 Aims and Hypotheses 49

2.0 METHOD 51

2.1 Project Overview 51

2.2 Development of Training at RCH 52

2.3 Evaluation of the Training 57
3.0 RESULTS

3.1 The Cascade and Participant Satisfaction

3.2 Changes in Attitude following Training

3.3 Reliability and Validity of the Questionnaire

3.4 Job Satisfaction and Training Efficacy

4.0 DISCUSSION

4.1 Delivery of Training - The Cascade Model

4.2 The Content of the Training

4.3 Attitude Change

4.4 The Measure - the Non-cognitive Symptoms Questionnaire

4.5 Training and Job Satisfaction

4.6 Audit and Research

4.7 Conclusions
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td>APPENDICES</td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Training Needs</td>
<td>102</td>
</tr>
<tr>
<td>5.2</td>
<td>Tutorials and Supplement</td>
<td>103</td>
</tr>
<tr>
<td>5.3</td>
<td>Further Reading</td>
<td>104</td>
</tr>
<tr>
<td>5.4</td>
<td>Supplementary Material</td>
<td>105</td>
</tr>
<tr>
<td>5.5</td>
<td>Non-cognitive Questionnaire</td>
<td>106</td>
</tr>
<tr>
<td>5.6</td>
<td>Job Satisfaction Questionnaire</td>
<td>107</td>
</tr>
<tr>
<td>5.7</td>
<td>Training Evaluation</td>
<td>108</td>
</tr>
<tr>
<td>6.0</td>
<td>REFERENCES</td>
<td>109</td>
</tr>
</tbody>
</table>
1.0 INTRODUCTION

This research project was developed in response to an identified need for staff training in psychiatric continuing care wards for elderly people.

In order to place the development of the training intervention within its wider context, there follows an overview of dementia and a review of relevant literature, particularly related to the currently changing culture in dementia care and pharmacological and non-pharmacological treatments of behavioural symptoms. The most influential factors in the development of the training material are also discussed.

1.1 Overview of Dementia

Dementia is the generic term used to describe a cluster of symptoms (a syndrome) which may be caused by a variety of disease processes. The major form of dementia is Alzheimer’s disease which accounts for around 50% of cases (Burns et al, 1990). Multi-infarct dementia and the more recently described dementia with Lewy bodies each account for a further 20% of cases (Miller & Morris, 1993; Perky et al, 1990). The remaining cases of dementia are accounted for by its numerous other forms including Huntington’s disease, Pick’s disease and alcohol related and post-traumatic dementias. Each form of dementia has its own specific associated clinical features and pathology which are usually more easily distinguished in the earlier stages of the disease. These elements are important in reaching a diagnosis. This in turn is important so that treatable conditions, including depression and drug side effects, which may have a presentation
similar to that of dementia can be identified. The many types and aetiologies of dementia have been extensively reviewed elsewhere (e.g. Jacques, 1992). The present study is more concerned with management of the consequences of the disease processes than with their causes.

Dementia is a progressive and chronic condition. Multiple brain functions, such as memory, language, intellect, judgement and reasoning, are affected and their decline produces what are termed the cognitive symptoms of dementia. Disturbance of behaviour and personality and the presence of psychiatric symptoms are described as non-cognitive symptoms and these will be discussed in detail later in this text.

Prevalence of Dementia

There are numerous dementia prevalence studies in the literature with wide variation in the rates reported. The use of different definitions, assessment strategies and population samples presents a confusing picture. Also, much of the literature originates abroad, particularly in the USA, and prevalence studies carried out there may not necessarily be directly transferable to UK populations. However, several more local meta-analyses have been published. For example the European Community Concerted Action On The Epidemiology Of Dementia (EURODEM) synthesis (Hofman et al, 1991) was a collaborative study which re-analysed original data from prevalence studies of dementia conducted in Europe between 1980 and 1990. Explicit and rigorous criteria were used
for including or excluding studies. EURODEM provided a mid-range estimate of prevalence rates, (see Table 1) and a later study (Carr, 1992), which screened all those over the age of seventy five years in a Tayside town, produced an estimate which was virtually identical to that of the EURODEM study. The present norm for an overall rate of dementia in those over 65 years of age is between 4% and 7% (Hofman et al, 1991).

Table 1
EURODEM prevalence rates:
Age-sex specific rate per 1000 population

<table>
<thead>
<tr>
<th>Age group</th>
<th>30-59</th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>75-79</th>
<th>80-84</th>
<th>85-89</th>
<th>90+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1.6</td>
<td>15.8</td>
<td>21.7</td>
<td>46.1</td>
<td>50.4</td>
<td>120.9</td>
<td>184.5</td>
<td>320.0</td>
</tr>
<tr>
<td>Female</td>
<td>0.9</td>
<td>4.7</td>
<td>11.0</td>
<td>38.6</td>
<td>6.7</td>
<td>135.0</td>
<td>227.6</td>
<td>328.2</td>
</tr>
</tbody>
</table>

From the above table it is clear that dementia is related to age, but it is important to note that it is not simply a consequence of ageing but involves distinct disease processes. "Old age is no more a disease than childhood" (Holden & Woods 1995).
At present the number of very elderly people is increasing with more people living beyond the age of 75 years. This increase in the older age group is important as these people are more likely to make use of health and social services than 65 to 75 year olds. They are also more likely to suffer from a dementing illness which has implications for the care and mental health services available for older people.

People with dementia receive care and support in a number of different settings with the majority living at home with an informal carer. A significant minority have been identified as residing in communal establishments such as psychiatric hospital wards (10%), local authority care (10%) and private residential care (9%) (Schneider et al, 1993). Despite an overall reduction of 20% in psychiatric beds in Scotland over the last 20 years, the proportion of elderly long-stay patients increased from 45 to 66 per cent between 1970 and 1988 (Scottish Home and Health Department, 1990).

Most of the 10% of people with dementia who live in long-stay psychiatric wards have some behavioural and emotional difficulties (Jaques, 1992) and it has been argued that this type of accommodation is inappropriate for people with dementia (e.g. Lindsay et al, 1991).

Between 1985 and 1993 funds were available in the UK, through the social security system, for those going into private residential or nursing home care. This resulted in a boom in private provision of care. The government decided to limit this funding by channelling it through local social services who have since been expected to assess and pay for new entrants to residential care on a means tested basis. As people have moved
out of hospitals and into voluntary sector or private establishments, the proportion of people with some kind of cognitive difficulty in residential care homes has been increasing to the extent that one third to one half of residents are estimated to have some kind of dementia (Tinker, 1992).

There is evidence that, in non-specialist care settings, people with dementia are more difficult to care for than those with a physical disability. Coon (1990) has suggested that this may be because care in these environments is based on a medical model and is inflexible and unresponsive to the psychological and social needs of residents. It has been suggested that people with dementia would be better cared for in settings with trained staff and where the physical environment and daily routine are more responsive to their needs (Maslow, 1990).

Symptoms of Dementia

As mentioned earlier, the symptoms of dementia are commonly classified as cognitive or non-cognitive. This classification is useful in that it acknowledges that not all symptoms can be related to deficits in cognitive processing but Rabins (1996) has pointed out some limitations inherent in this distinction. For example the term non-cognitive is non-specific and there is a degree of overlap between cognitive and non-cognitive symptoms. Rabins (1996) illustrated this point with the following example, “A demented patient with an agnosia may become frightened (a non-cognitive symptom) because he cannot recognise his spouse as a familiar person (as a result of cognitive impairment) or because he is
hallucinating (as a result of a non-cognitive symptom); similarly the patient may be unable to feed himself because the agnosia prevents him from adequately perceiving a plate of food (as a result of cognitive impairment) or because he has a delusion that the food is poisoned (as a result of a non-cognitive symptom)". Rabins also pointed out that the dichotomy between cognitive and non-cognitive ignores the utility of the functional approach to impairment. In focusing on function the clinician seeks to implement interpersonal, psychological, pharmacological or environmental therapies to diminish an impairment whether it is due to a cognitive or non-cognitive symptom. There is therefore no one best way to conceptualise the behavioural disturbances associated with dementia and, as the remainder of the present study will highlight, multiple origins can be identified for single symptoms. The following section will focus on symptoms, and in particular the management of the non-cognitive symptoms of dementia.

Cognitive symptoms
The cognitive symptoms of dementia are those which reflect a deterioration in “thinking” abilities such as concentration, understanding and expression of language, mental flexibility and spatial ability. A great deal of research related to dementia has focused on brain structure pathology and the associated cognitive deterioration. There has been considerable interest particularly in pharmacological treatments intended to enhance cognitive performance. Orell and Woods (1996) pointed out some possible reasons as to
why much research has focused on drug therapy in dementia care. They suggested that the financial rewards contingent on developing successful drug treatments have attracted investment by large pharmaceutical companies. The potential dangers of new drugs ensure that research is tightly regulated and must be of a high standard for the results to be publishable and for the product to be licensed for use. In the USA and Europe trials for anti-dementia drugs require parallel group, placebo-controlled, double-blind studies of at least three months duration using widely accepted cognitive tests, a global measure and, in Europe, measures of activities of daily living or quality of life. Trials of drugs for dementia have evidently had more advanced methodology, larger groups and apparently more “success” than studies of psychological or non-drug interventions (Orrell & Woods, 1996).

**Non-cognitive symptoms**

Recently there has been increased interest in the “non-cognitive” features of dementia which include changes in behaviour, changes in personality and the occurrence of psychiatric symptoms such as delusions and hallucinations. The non-cognitive symptoms have long been recognised as a major feature of dementia. For example, in 1907 Alois Alzheimer described a patient whose first clinical symptom was that of suspiciousness towards her husband whom she (wrongly) accused of having affairs with other women. This delusion persisted throughout the course of the patient’s increasing cognitive impairment.
Research studies into the prevalence of non-cognitive symptoms of dementia have considered different populations, used different measures of behaviour disturbance and have often investigated only specific behaviours such as wandering (Hope & Fairburn, 1990) or aggression (Patel & Hope, 1992). This has resulted in varied estimates of prevalence, however non-cognitive symptoms are usually accepted as occurring in between 80 and 90 per cent of all cases of dementia at some stage of the disease (Burns et al., 1990).

Hope et al. (1997) analysed behaviour changes in people with dementia at the point of entry to a longitudinal study. They used a specially developed questionnaire (Present Behaviour Inventory, Hope & Fairburn, 1992) to investigate the occurrence of specific behaviours within eight parameters including mental health, activity disturbance, abnormal eating, diurnal rhythm disturbance, aggressive behaviour and abnormal sexual behaviour. In contrast to other studies (e.g. Burns et al., 1990) all the participants were living at home with an informal carer. In common with Burns et al., (1990) Hope et al., (1997) found that, “behavioural disturbance occurred in a significant proportion of patients with dementia; that there was a very large range of behaviour changes which occurred at all levels of cognitive impairment; and that there was great variation between individual patterns of behaviour” (Hope et al., 1997, p. 1069).

The eight most commonly reported changes in behaviour were:

1. Moving and mislaying objects (71%).
2. Verbal aggression (69%).
3. Walking or other nocturnal activity (45%).
4. Eating less (41%).
5. Apparent sadness (40%).
6. Hyperphagia (35%).
7. Changed food choice (33%).
8. Repeated requests or demands (31%).

Hope et al (1997) found no association between behaviour disturbance and duration of dementia, age or gender. There was, however, a significant increase in behaviour problems such as wandering, insomnia and agitation associated with deterioration of cognitive function.

Research carried out in a variety of settings involving both formal and informal carers has shown that the behavioural changes in dementia are a major source of stress to carers. Behaviours such as aggression, wandering, suspiciousness and communication problems have been found to be particularly so. In the United States, Steele et al (1990) reported that the presence of behaviour problems predicted admission to permanent care for people with dementia whereas severity of cognitive impairment did not. Also in the United States, Morriss et al (1996) found that about 25 per cent of new nursing home admissions were due to disruptive behaviour, although there were nearly always other reasons in addition. In summary, reasons for admission to permanent care for people
with dementia are varied and interact with each other but studies have consistently shown that behaviour disturbance is an important factor.

Management of Non-cognitive Symptoms

Pharmacological Interventions

In common with research in other areas of dementia, many investigations into the treatment of non-cognitive symptoms have considered the use of drugs. However, older people have long been recognised as particularly vulnerable to the adverse effects of most forms of drug therapy. This is due mainly to age related changes which affect the body’s ability to absorb, distribute, metabolise and excrete drugs thus making older people more sensitive to their effects (Bishop, 1993). In spite of this, Warren et al (1985) estimated that older people are prescribed three times more drugs than the general population. Increased use and complex combinations exacerbate the likelihood of drug toxicity and interactions in this population. A recent British survey (Lindley et al, 1992) of 416 consecutive hospital admissions for people over the age of 65 years found that 92 per cent were taking prescribed medication on admission. Eleven per cent were taking drugs with absolute contra-indications and 27 per cent were taking drugs which were deemed to be unnecessary. Twenty seven per cent experienced adverse drug reactions and half of these were due to drugs that were either contra-indicated or unnecessary. Six per cent of admissions were directly attributed to an
adverse drug reaction. Diuretics accounted for over half of the adverse effects, beta-blockers and anti-psychotics were the other main offenders.

Briant (1987) found that many admissions to psychogeriatric units were precipitated by adverse reactions to medication prescribed for physical as well as psychiatric conditions. Presentations included, behaviour disturbance, hypotensive episodes, extrapyramidal symptoms, confusion and excessive sedation.

This situation has serious implications when considering the prescription of further drugs - for example psychotropic medication in the management of non-cognitive symptoms of dementia.

Anti-psychotic drugs are primarily indicated to relieve symptoms associated with mental illness such as delusions, hallucinations and paranoia and there is research evidence to support the use of anti-psychotic drugs to calm acutely agitated people with dementia (e.g. Risse & Barnes, 1986; Helms, 1985). However, research support for the use of anti-psychotic drugs for the long-term management of non-cognitive symptoms of dementia remains weak and questionable (e.g. Schneider et al, 1990).

Much of the literature available concerning the prevalence of the use of psychotropic drugs in dementia care has originated in the USA and has shown the use of psychotropic medication to be high among elderly populations. However figures may not be directly transferable to the population in the UK. Several American studies have identified the misuse of psychotropic drugs, particularly in nursing homes (Ray, Federspiel & Shaffner
1980; Svarstad & Mount 1991) and this has prompted publication of regulative legislation in the United States (Board of Directors of the American Association for Geriatric Psychiatry, 1992). Burgio & Hawkins (1991) pointed out that, although psychotropic drugs are frequently prescribed for the elderly, few studies have examined the efficacy of these medications for managing behaviour problems. They carried out a study which aimed to assess the specific effects of neuroleptic drugs on various aspects of behaviour including; aberrant and adaptive behaviours, motor performance and somnolence. The results of this study suggested that the medications prescribed (the neuroleptics, thiothixene, thioridazine, haloperidol and the anti-depressant nortriptyline) can be effective in decreasing the occurrence of aberrant behaviours in elderly nursing home residents. However, a very small sample size was used in this study and so the results may not be generalisable. Burgis & Hawkins also stated that “The mechanism for the purported efficacy of these drugs is unknown at this time. One possible explanation is that the medications produce pronounced somnolence and fatigue, which are incompatible with disruptive behaviours”. This seems a likely explanation in view of the fact that they also reported that all the medication used in their study was associated with increased day-time sleeping.

It seems that if the production of somnolence and associated immobility is the mechanism by which these drugs reduce disruptive behaviour, then their use as a therapeutic strategy must be questioned. Apart from oversedation there are a number of other common side effects of anti-psychotic drugs. These include; tardive dyskinesia (abnormal movements
of the lips, tongue and jaw), akathisia (motor restlessness and agitation), extrapyramidal symptoms (tremor, rigidity drooling and disturbances of gait and posture), anticholinergic effects (dry mouth, constipation, blurred vision) and postural hypotension (lowering of blood pressure on standing which causes dizziness). These side effects are frequently identified in older people even when dosages are low and within a therapeutic range (Taft, 1989). When prescribed in response to non-cognitive symptoms these side effects can be more distressing and problematic than the initial behaviour. Kikuta (1991) identified the need for research to monitor the effects of anti-psychotic medication in order to differentiate behaviours resulting from the prescribed medication and those which are non-cognitive symptoms of dementia.

Psychotropic medication has also been implicated in producing falls in the elderly. This is an important concern as falls represent a major cause of morbidity and mortality. Deluca & Lawlor (1992) investigated falls in a population of inpatients on a psychogeriatric ward and found that fallers were more frequently administered benzodiazepines and neuroleptics on an “as required” basis for “agitation”, although there was no difference in the number of medical diagnoses or standing medications between the fallers and the non-fallers. This is may be an indication that the drugs are resulting in a side-effect such as postural hypotension. One American meta-analysis (Schneider et al, 1990), considered the results of seven studies concerning neuroleptic drug use in dementia which had a placebo control and were double blind. No individual study showed a statistically significant difference between the active treatment group and the placebo control groups.
Gerdner & Buckwalter (1994) suggested that anti-psychotic drugs should only be used, “when all other non pharmacological methods have failed”. However Nygaard et al (1994) stated that “the use of anti-psychotic drugs to control and manage challenging behaviours appears to reflect a general attitude of routine practice and accepted custom”. A recent study in Scotland (MacDonald & Tevan, 1997) investigated the use of anti-psychotic medication in hospital wards and nursing homes for older people and for people with dementia in the Falkirk and Stirling areas. This study found that 88.6 per cent of all psychotropic drugs prescribed were in response to behaviour disturbance and the percentage of patients who were prescribed anti-psychotic drugs ranged from 9 percent of residents in one of the nursing homes to 68 percent of patients in one of the hospital wards. Also in Scotland, Connolly (1992) used an audit approach to assess behaviour problems, dependency levels and use of antipsychotic medication in a geriatric psychiatry continuing care unit. This study reported that 37.5% of the population were receiving regular antipsychotic medication. The severity of diurnal restlessness, agitation, irritability, and aggression were found to discriminate this group from those who were not prescribed antipsychotics. It has previously been suggested that psychotropic drugs may be administered by nurses and physicians, “with a sense of personal frustration and a need to do something” (Taft & Barkin, 1991). Qualitative data gathered in the Scottish study cited above confirmed this view.
In summary, although there is evidence for the widespread practice of using neuroleptic drugs in response to difficult behaviour associated with dementia, there is limited evidence to support this practice.

Non-pharmacological Interventions

As recently as 1980 the prevailing view of dementia was that it presented a hopeless picture. Care for people with dementia at this time was seen primarily as providing for basic physical needs while the process of degeneration of nerve tissue progressed. It was generally believed that little could be done in a therapeutic way through direct human intervention and that no radical changes would be brought about until medical science had discovered the underlying biochemistry and developed treatments which would arrest or prevent the pathological process (Kitwood, 1995). As progress has been slow and there remains no cure or effective drug treatment for dementia a “new culture” in dementia care which focuses less on treatment and more on quality of life for people with dementia has gained international interest. With the change in culture has come increased interest in management of the non-cognitive symptoms of dementia and this has recently been reflected in several publications.

For example, in 1996 the Division of Mental Health and Prevention of Substance Abuse of the World Health Organisation published a consensus statement which was prepared by an interdisciplinary group representing the principle international associations. The consensus was in the form of a summary of the scope of psychiatry of the elderly and was
intended to “promote awareness of mental health problems in older people, to initiate or improve the provision of services and to encourage teaching and research in the area” (Wertheimer, 1997). The consensus statement included several points which lend support to a move away from a medical model in dementia care. It encouraged diagnostic formulations which, “emphasise abilities as well as deficits and incorporate the meaning given to the illness by the patient and the family” (Wertheimer 1997). The need for education to counteract therapeutic pessimism of both professionals and patients is highlighted, as are the negative aspects of drug treatments. Some alternatives to drug treatments are suggested.

In 1997 The International Geriatric Association also published a consensus statement (Finkel et al 1997) which was specifically concerned with behavioural and psychological signs and symptoms of dementia. Finkel et al (1997) stated that, “At present the greatest opportunities for intervention and the alleviation of patient suffering, family burden and societal costs are within the domain of behavioural and psychological signs and symptoms of dementia”. They point out the need for further research into appropriate treatments for non-cognitive symptoms. In the Medical Journal of Australia, Peisah & Brodaty (1994) published “Practical Guidelines for the Treatment of Behavioural Complications of Dementia”. Investigation of the causes of behavioural disturbance was advocated in this article as was the implementation of non-pharmacological measures before any trial of medication.
In addition to the above publications, the Scottish Intercollegiate Guidelines Network Group (SIGN) has published a national clinical guideline (1998), which will be discussed in detail later in this text.

Publications such as these lend testament to the interest in changing patterns of care and serve to raise interest in different approaches among people caring for those with dementia.

1.2 Development of “The New Culture” In Dementia Care

Although interest in non-pharmacological approaches to dementia care has increased recently, other approaches have been considered over a number of years.

The first non-pharmacological approach to be adopted in dementia care was probably Reality Orientation (RO). This approach was first described in relation to elderly people by Folsom (1968). It originated from attempts to rehabilitate veterans of the Vietnam war and restore them to civilian life. It was then taken into work with “confused” elderly people and good effects in the form of renewed vitality and hopefulness were observed. Research has since confirmed its efficacy in some contexts (Holden & Woods 1995).

Although there has been criticism of RO, Kitwood (1995) pointed out that it “was the first sustained attempt to recognise the personhood of people with dementia, expressing the belief that they were not to be written off”.
A few years after RO had been developed, Naomi Feil (1982) reported another positive non-pharmacological approach, termed Validation Therapy. This approach shifted the emphasis from cognition to emotion, where dementia often brings much less impairment. Essentially validation therapy involves the acceptance of the person with dementia’s experiences and emotional responses as valid and not to be “corrected”.

Later Gibson (1994) described the development of reminiscence work and the assimilation of biographical information into care practice. “The crucial recognition here is that people with dementia, like the rest of us, are historical beings whose identity is inextricably linked to their personal narrative” (Kitwood 1995).

Following the success of the approaches described above many other ways of enriching the lives of people with dementia have been explored. For example, various specific occupational activities and music therapy have been reported as effective in some studies although these have tended to include only small sample sizes or single cases.

The important point, according to Kitwood (1995), is that “each of these forms of intervention, at its best embodies a fuller recognition of those who have dementia as sentient beings, still capable of communicating their desires and feelings”.

There have also been attempts to design new patterns of group living for people with dementia as policy moves towards care “in the community” rather than in large institutions. A well known project of this type is the Domus Project in Cornwall (Lindesay et al, 1991). Evaluation of this project has shown greater levels of interaction,
a decrease in depression and a lower rate of general decline compared with more traditional care settings. The Domus philosophy of care was intended to provide residents with a home for life which would emphasise their psychological and emotional needs. Residents are encouraged to be actively involved in the home in order to maintain residual capacities. An important point regarding the Domus Project is that the staff are “cared for” as well as the residents and there is a high level of support amongst the staff groups (Dean et al 1993).

In Scotland, housing associations who have a long tradition of providing housing for older adults have recently turned their attention to people with dementia (Foster, 1994). Supported housing for people with dementia provides domestic and ordinary types of accommodation in small group settings. This aim of this kind of housing is to help people with dementia remain as independent as possible, provide them with choice and offer them a home for life (Foster, 1994).

1.3 Models of Care for People with Dementia

Jones & Mieson (1993) suggested that for overall well being the emphasis in caring for those with dementia should be taken away from the intellect. They stated that, “care giving in dementia emphasises that in the absence of cures or treatments for dementia happiness and the individual’s capacity for it are more acceptable goals than improved cognition”.
As the use of chemical and physical restraints has come under scrutiny in dementia care for managing behavioural symptoms, psychosocial approaches have been investigated to provide alternatives. Implementing a psychosocial model is intended to provide a holistic alternative to the medical model and to have the potential to manage behaviour symptoms while maintaining the best quality of life for the people with dementia.

For example, Taft et al (1997) have presented a psychosocial model of dementia care. This model has much in common with that proposed by Kitwood (1990) in which the illness is seen as an interplay between neurological, social and psychological factors. Kitwood’s central assumption was that the “psychological self, the self of personal identity persists long into the illness” (Kitwood & Bredin, 1992). With regard to non-cognitive symptoms the psychosocial model reconceptualises “problem behaviours” as symptoms that may reflect emotional as well as somatic states and may result from external factors in the environment as well as internal factors in the person with dementia (Taft et al, 1997). Essentially the psychosocial model reframes the nature of caregiving from a medical focus on the disease and symptom control to a focus on the person, their needs and abilities and the meaning of their behaviour. Use of this type of model should help to minimise the need for physical and chemical restraints, preserve personhood and sustain humanity in people with dementia (Taft et al, 1997).

There are very few published controlled studies investigating non-drug approaches to management of non-cognitive symptoms of dementia. Many of those available are single case studies or anecdotal accounts of specific interventions.
For example, Kikuta (1991) described a successful intervention based on a behavioural analysis for a man with severe Alzheimer’s disease who was extremely disruptive in a psychiatric hospital ward. The behavioural analysis resulted in decisions to change the patient’s medication regimen, features of the environment, and staff responses to his behaviour. Kikuta reported “immediate evidence of successful treatment”. Although this single case study does not permit any firm conclusions regarding this type of treatment approach it highlights the importance of considering a multifactorial model to monitor and alleviate problem behaviour.

King (1995) advocated a “holistic” approach to the treatment of “agitation” for a patient with dementia. This approach also involved focusing on the person’s “whole being” rather than on symptoms. King emphasised the importance of considering the patient’s individuality, the effects of physical and mental problems, their environment, and the nature and culture of the caring environment itself.

Hinchliffe et al (1995) studied the effect of individualised “packages of care” on behavioural disturbance in dementia. The individualised packages were developed after careful consideration of each specific behaviour which included night time disturbance, restlessness, urinary incontinence and aggression. Intervention was then implemented in response to the aetiology of the behaviour. For example, repeated questioning was noted to occur when the person with dementia was understimulated. Carers were therefore encouraged to involve the person in activities from which they had previously derived
pleasure. Hinchliffe et al concluded that behaviour problems in people with dementia can be improved using individually tailored interventions.

1.4 The Aetiology of Non-cognitive Symptoms

Cummings (1996) pointed out that there are several stances which have been adopted in relation to the aetiology of behavioural disturbance in dementia. Behavioural disturbance has been regarded by some as reactive to the emotional distress associated with having dementia, some have regarded behaviour disturbance as reactive to advancing cognitive impairment and others have regarded it as a primary manifestation of central nervous system disease. This latter perspective, however, does not consider that patients with dementia are human beings who feel, think, wish and behave. Nor does it consider that the disturbed behaviour may be related to the patient’s other behaviours or the to the responses elicited in caregivers.

Rader & Harvath (1991) state that, “One of the biggest factors contributing to the non therapeutic use of psychotropic medication to manage behaviour is a lack of data about the behaviour being treated”. Several publications have specifically emphasised the importance of knowledge of the aetiology of the behaviour before any management strategy is implemented.

Research by Ware et al (1990) studied thirty seven people with dementia who were known to be aggressive. The aim of this study was to examine the nature of aggressive
behaviour and in particular the circumstances in which it occurred. Ware et al (1990) concluded that aggressive behaviour could be classified both in terms of the behaviour itself and in terms of the circumstances in which it occurred. The latter classification included more categories (such as, during intimate care, in response to being prevented from carrying out an inappropriate task, in response to instructions) and was found to be more useful in separating types of aggression with different aetiologies and therefore in evaluating possible treatments.

Welsh et al (1996) considered the co-occurrence of language impairment and aggression in Alzheimer’s disease. Their first consideration was “what is meant by aggression?” for which a satisfactory and consistent definition has been elusive. Several other studies were cited by Welsh et al, (1996) which illustrated the inconsistency of this concept. The study by Welsh et al confirmed a previous finding (Burns 1990), that there is an inverse correlation between levels of cognitive impairment and levels of aggressive behaviour. Of more relevance to the present study is their finding that aggression also correlated highly with impaired language expression and comprehension. It was suggested that impaired language expression may contribute to aggression through associated frustration at the inability to self-express. On the other hand impaired comprehension may lead to misinterpretation of the communications and intentions of others. This finding suggested that deeper understanding of the implications of language difficulties for people with dementia may enable carers to compensate for this in some way and therefore to avoid aggressive behaviour.
Wandering is another behaviour which frequently occurs in people with dementia. There are many risks associated with wandering including the potential for encountering hazards, falls and fractures and diversion of nursing staff from other duties (Mayer, 1991).

Hope & Fairburn (1990) studied the behaviour of 31 patients who were known to "wander". This study aimed to identify the range of behaviour commonly described as "wandering". It was clear that the term was used to cover a wide range of quite different types of behaviour. In view of this Hope & Fairburn (1990) attempted to discern specific behavioural abnormalities which could be described precisely. On close assessment of the patients' behaviour in their study nine different types of wandering were described.

Hope & Fairburn (1990) then suggested five constructs which may help to bridge the gap between descriptive typology and underlying cause. On the basis of the cases studied it was suggested that the following five components of wandering were of particular importance.

1. Overall amount of walking activity.
2. Avoidance of being alone.
3. Diurnal rhythm disturbance.
4. Navigational ability.
5. Faulty goal directed behaviour.
Any of these five components may be operating for a specific patient and consideration of this may be crucial in developing an appropriate and effective non-drug management strategy. The fact that these five components were identifiable illustrated how apparently disparate types of behaviour collectively described as “wandering” may actually have distinct neurological or neuropsychological origins. It also illustrated how unhelpful non-specific descriptions such as “wandering” are in understanding the meaning of behaviour.

In accordance with the need identified in published research to understand the aetiology of behaviour, much of the literature published recently, particularly in nursing journals, emphasises the importance of accurate recording and behavioural analysis before any treatment strategy whether pharmacological or psychological is implemented (Kikuta 1991, Rader & Harvath 1991, Boem et al 1995).

In consideration specifically of non-cognitive symptoms of dementia, Stokes (1990) proposed a concise model of “multiple pathways” to behaviour which compliments Taft’s (1997) psychosocial model of dementia care. Stokes suggested three potential avenues of influence or “pathways” to behaviour.

1. Physical of biogenic pathways - physical or biological issues such as pain, disability, drugs, alcohol and illness will play a large part in determining behaviour.
2. Psychological or psychogenic pathways - attitudes, beliefs, past history, personality, life trauma all influence behaviour.

3. Environmental pathways - may be subdivided into physical and social environments. The physical including such things as, light, space, temperature, furniture design etc. The social consisting of people around (carers, family members, friends) and their attitudes, practices and policies which influence their behaviour.

King & Watt (1995) advocated the use of a holistic, structured and ethical approach to managing behavioural problems in people with dementia. In relation to agitation they point out the complexity of causes which must be considered when implementing treatment and suggest a guideline to investigating agitation which closely corresponds to Stokes’ model. King & Watt (1995) consider that antecedents of agitated behaviour would include: cognitive impairment, psychiatric disorders, internal and external stimuli, sensory impairment, physical disorders and pharmacological effects. Their guidelines to the investigation of agitation include consideration of; the person, physical or mental disorders, the environment and the caring organisation. It is stated that, “The vulnerability of the person with dementia makes it necessary for us to take care not to violate basic human rights. It is too easy to manage restlessness and agitation by the inappropriate use of drugs, restraints or removal of the person.”

In summary, care for people with dementia is shifting away from a task orientated, custodial approach towards a person centred approach based upon consideration not only
of a medical model of dementia but upon psychosocial factors too. It is not possible to draw firm conclusions from the literature regarding the superiority of either pharmacological approaches or psychological approaches to the management of non-cognitive symptoms of dementia. Medication appears to be at best ineffective and at worst detrimental to patients because of side effects and interactions with other drugs. There is also potential for the misuse of neuroleptic medication as a form of restraint. Although no specific psychological approaches have proven wholly effective, none have been reported as harmful and several have been reported as beneficial in single cases or to small number of patients.

The “new culture” in dementia care appears to have developed along two strands. The first emphasises the need to closely examine behaviour in an attempt to understand its aetiology and meaning. The second strand emphasises the need to make use of this understanding in a way which is empathic and “person centred”.

1.5 Context of the Present Study: The SIGN Guideline

As mentioned previously the Scottish Intercollegiate Network published a guideline early in 1998. This guideline, which is summarised below, provided the impetus to examine some aspects of practice within the Old Age Psychiatry Clinical Management Group of Grampian Healthcare Trust. The SIGN guideline was based on a systematic review of relevant literature covering the fifteen years up to September 1996. From 3,000 papers initially identified, a short-list procedure then excluded non-clinical papers, papers
concerning diagnosis and assessment, papers concerning the natural history of dementia or non-dementia diagnosis, non-English abstracts and papers concerning treatments which aimed to enhance cognitive performance.

The short-listed papers were reviewed in detail and graded according to "levels of evidence". Levels of evidence ranged from level Ia - evidence obtained from meta-analyses of randomised controlled trials to level IV - evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

All recommendations included in the guideline were then graded A, B or C according to the levels of evidence available to support them. SIGN did not grade any of its recommendations A which is a reflection of the fact that level Ia research into the treatment of non-cognitive symptoms of dementia is currently lacking in the literature.

The remit of the SIGN guideline was to make recommendations for the management of non-cognitive symptoms of dementia. It was not intended to serve as a standard of medical care. The guideline is to be reviewed in the year 2000.

A summary of the recommendations made in the SIGN document is presented below.

1. Non drug intervention

On the basis of the available evidence and the problems associated with drug intervention, non-drug interventions should always be considered along with drug options before treatment is started. (Graded C)
2. Neuroleptic drugs

Neuroleptics have been widely prescribed in the management of dementia but evidence for their efficacy is limited, therefore patients should only be considered for treatment with neuroleptics if they have serious problems, particularly psychotic symptoms, serious emotional distress or danger from behaviour disturbance. (Graded C)

Low doses should be prescribed initially. (Graded C)

Treatment should normally be short term and should be reviewed regularly. (Graded B)

The prescriber must be aware of potential side-effects. (Graded C)

Care should be taken to identify Lewy body dementia because of the increased risk of severe side effects. (Graded B)

3. Use of Other Drugs

Marked and persistent depression in the presence of dementia may be treated with antidepressant medication. (Graded B)

Severe and persistent anxiety in the presence of dementia may require short term anxiolytic treatment. (Graded C)

Severe and persistent insomnia in the presence of dementia may require short term hypnotic treatment (Graded C) SIGN (1998).
1.6 Royal Cornhill Hospital Audit

Within the Old Age Psychiatry Clinical Services Management Group (CSMG) in Grampian Healthcare NHS Trust, an audit project commenced in October 1997 to examine the quality of information recorded with respect to the management of non-cognitive symptoms of dementia. The first phase of the audit consisted of a review of nursing and medical case notes. The pharmacist at Royal Cornhill Hospital identified forty three patients (24%) from eight wards within the Old Age Psychiatry CSMG who had received new prescriptions or changes to existing prescriptions for neuroleptic, hypnotic/anxiolytic and/or anti-depressant medication within the previous three months. This cohort all had a primary diagnosis of dementia.

The nursing and the medical notes for this group of patients were then examined for evidence: firstly, that there was a record of the problem for which the medication was prescribed; secondly, that there was a record of any prior intervention tried for the problem; thirdly, that there was a record of the effectiveness of medication in the treatment of the problem.

The results of this investigation were as follows:

*65 per cent of the case notes contained a record of the problem for which the medication was prescribed.

*26 per cent of the case notes contained evidence of an alternative intervention being tried before the prescribed medication.
40.4 per cent of the case notes contained a record of the effectiveness of the drug treatment in relation to the initial problem.

In 11 cases there was no record of the reason for the medication prescribed.

In 9 cases aggression or violent behaviour was recorded as the reason.

In 4 cases agitation was the recorded reason.

In 4 cases psychotic symptoms was the recorded reason.

In 3 cases depression was the recorded reason.

In 2 cases a combination of aggression and agitation was recorded.

In 6 patients other problems were recorded as the reason for prescription.*

*Other “problems” included diagnoses of schizophrenia, Huntington’s chorea and Parkinson’s disease.

Examination of the medical notes for the same cohort of patients revealed that:

In 78 per cent of cases there was a recorded indication for new prescriptions.

In 32 per cent of cases there was recorded evidence of a prior intervention (drug or non-drug) for the problem.

In 42 per cent of cases there was recorded evidence of the effectiveness or otherwise of the medication prescribed.

In common with the nursing notes the most frequently cited reasons for prescribing medication were for the treatment of “aggression” and “agitation”. The reasons recorded overall were more varied in the medical notes than in the nursing notes but were
sometimes extremely vague, e.g. "behaviour" and "mood disorder" were recorded with no further explanations as to their manifestation.

The findings of the audit project unequivocally identified a need for change at least in recording practice and perhaps also in clinical practice.

Although they are not directly responsible for prescribing medication, nurses play an integral role in administering therapeutic regimens. They are responsible for administering medication and monitoring side effects. In many instances nurses spend much more time interacting and communicating with patients than other health care providers (Chapman, 1991). It is likely that information passed on to medical staff by nurses will be the basis for decisions made regarding the prescription of medication.

Indeed qualitative data from the study by MacDonald & Tevan (1997), revealed that nurses were aware of the influence that they had on decisions taken by medical staff.

Although the audit project revealed areas in recording practice related to the pharmacological treatment of non-cognitive symptoms where practice could be improved (by nurses and medical staff), it was felt that change could not be initiated without providing some alternative strategies. Training was seen as the key strategy for beginning the process of change.
1.7 Training in Non-drug Interventions

Taft et al (1997) pointed out the need for further research in the development of assessment tools to measure social and psychological variables related to dementia. Outcome measures in research on dementia care have focused to a large extent on behavioural, cognitive and functional variables. Taft et al (1997) also suggested that research is needed to test the clinical outcomes in dementia care when social and psychological interventions are taught to carers. In parallel with increased interest in dementia care, methods of measuring quality of care have been devised. For example, Dementia Care Mapping (Kitwood & Bredin 1994), is an observational method used to evaluate the quality of care in formal settings. It is based on the idea that observers must, "acquire a new pair of eyes with which to see the reality of care (or uncare) as experienced by people with dementia" (Fox, 1995). Dementia Care Mapping uses two coding frames. The first, Behaviour Category Coding, is a record of the types of activities occurring in successive five minute time frames. An indication of well-being or ill-being known as a Care Value is also noted on a six point scale. The second frame keeps a record of any short-lived episodes in which a person with dementia is demeaned or depersonalised in some way. This is known as Personal Detraction Coding and there are five levels of detraction ranging from mild to extreme. Raw data can be processed in a number of ways to show, for example, the distribution of activities and inactivities or to obtain a Care Value Profile based on the distribution of scores on the Care Value Scale. In Dementia Care Mapping the observer must attend very closely to features of the care
environment as well as recording data in coded form. The information can then be collated and used to build up a picture of the care environment. However, such evaluation is extremely demanding since dementia care mapping requires users to undertake an extensive training in its application. However it is potentially an appropriate measure of change if used repeatedly in the same setting.

There are few published studies regarding methods and effectiveness of training for carers in the implementation on non drug interventions. However, one such study recently reported the effect of a training programme on the psychosocial management of non-cognitive symptoms of dementia for nursing home staff (Moniz-Cook et al, 1998). This training package was based on person centred approaches to dementia (Kitwood, 1995) and staff were encouraged to explore the meaning of behaviours and to recognise their own role in the positive and negative behaviour of residents. The structure of the training drew directly on the model proposed by Stokes (1990) and was delivered by a psychiatrist or clinical psychologist over five, three hour weekly sessions. The content of the training was:

1. Psychogenic basis of challenging behaviour.
2. Neuropsychological and biogenic causation.
3. Communication with residents.
4. Quality of life and the effects of the environment.
5. Person centred care planning.
Material was presented formally but there were opportunities for small group work, discussion and support among participants. This training was evaluated using a rating scale which yielded information about the frequency, severity and "level of challenge" of behavioural symptoms. Results showed that staff in the experimental homes reported less difficulty in behaviour management than the control group three months following the training but this was not maintained one year post training. The researchers suggested that the training achievements might have been maintained had staff received regular follow-up sessions. The initial success of this intervention, however, provided some indication that the content of the sessions was appropriate. Perhaps with a different method of delivery the positive initial effect would have been sustained.

A second recent study (Shah & Tamal, 1998) investigated the efficacy of an educational package, directed at nursing staff in reducing aggressive behaviour among residents on a continuing care ward. Aggressive behaviour was measured using scales which were completed for each patient every day throughout the study by nursing staff and the ward manager independently. Training was administered by a consultant psychiatrist who met all the staff twice a week for 45 minutes over a period of six weeks. Components of the training package were: support, the opportunity for nursing staff to vent their feelings and the sharing of knowledge based on a literature review. Sessions were pre-planned and consisted of an informal presentation and opportunities for questions and discussion. Following this training, a significant reduction in aggressive behaviour was shown on the scales although it was not established conclusively that this was due to the training. Shah
& Tamal suggested that there may have been a non specific effect of providing regular support to the nursing staff which raised their tolerance levels for aggressive behaviour resulting in a reduction in their reporting of these behaviours.

No follow-up was included in this study and so the durability of effects remained unexplored.

Gosnell (1984) identified a conceptual framework for the evaluation of continuing education nurse training programmes. Four types of evaluation were suggested:

1) perceptual-opinion evaluation, 2) measurable learning evaluation, 3) behavioural performance evaluation, and 4) out-come results evaluation. Gosnell noted that most type 1 and 2 studies have indicated positive effects of continuing education programmes on participants’ opinions and on their cognitive learning. The results of type 3 and 4 studies which evaluated the effects of training programmes on nurses’ behaviours and practice, have been less conclusive. For evaluation of types 3 and 4, Dementia Care Mapping, described previously may be an appropriate method.

According to Gosnell, type 2 evaluation may consist of pre and post training measures of knowledge, for example, multiple choice questions related to facts presented in the training, or it may consist of pre and post training attitude measures of some factor related to the training. For example, nurses’attitudes towards the elderly have been shown to become significantly more positive following a brief training intervention, the content of which was biological and psychological aspects of the ageing process, health problems, nursing care, medication usage and behavioural problems (Harrison & Novak, 1988). The
programme consisted of four two hour classes offered over a four week period. Each class was offered several times per week but only 76 out of 550 nurses participated in all four sessions. A discussion format was used to facilitate nurses’ participation and encourage the sharing of feelings, thoughts and perceptions related to the topics. Participants’ post-session evaluations were reported as very positive. In this study the Kogan Attitudes Towards Old People Scale (Kogan, 1961), which had previously been shown to be reliable and valid, was used to measure nurses’ attitudes towards the elderly before and after training. As well as a significant change in attitudes following training, Harrison & Novak found a significant increase in factual knowledge related to the content of the training. Their evaluation also included before and after training measures of patients’ satisfaction with the standard of care they were offered. The training was found to have no measurable effect on this parameter.

1.8 Mediating Factors in Response to Training

There are numerous potential mediators of response to training. Some of these have been explored although few have been reported specifically in terms of their potential influence on the impact of training. Mediating factors reported in the literature can generally be classified as personal (attributes of individuals) and organisational (attributes of the workplace or organisation) or alternatively they may be classified as internal or external respectively.
Examples of such potential mediators which have been explored specifically in relation to staff caring for elderly psychiatric patients are: empathy (Astrom, Nilsson, Norberg & Winbald 1990), psychological distress (Macpherson, Eastley, & Richards, 1994) and attitudes towards demented patients (Astrom, Adolfsson, Sandman, Wedman & Winblad, 1987).

Examples of potential external mediators which have been explored are: perceived support available to staff and emotional climate within the organisation.

Investigation of all potential mediating factors in relation to response to training would be prohibitive. For the purpose of the present study, it was therefore decided to investigate the concept of “job satisfaction” and its relationship to response to the training.

Job satisfaction was the measure chosen because it is not a unitary concept but contains within it elements of both internal and external origin. Also, should job satisfaction prove to be a strong mediator of response to training there are perhaps elements of this which are more amenable to change (particularly if they are of external origin) than personal attributes of individual staff members.

Job Satisfaction

Previous research has explored stress, burnout, attitudes, empathy and job satisfaction in various populations caring for those with dementia. Studies with informal carers have found that aspects of the person with dementia are not necessarily the main factor contributing to carer stress, although some studies (Gilleard et al, 1984, Everitt et al, 1991) have linked stress in carers to demanding and disruptive behaviour on the part of
the person being cared for. High stress levels among informal carers have been demonstrated and a complex relationship exists between stress and factors such as severity of dementia, behavioural symptoms, coping strategies and satisfaction derived from the caring role (MacPherson et al, 1994).

Clearly the demands of institutional care differ greatly from those of community care by an informal carer. Stress in professionals may be compensated for by financial gain, professional support and other work related factors such as working shifts and not having a long-term relationship with the patient dating from when they were well.

Levels of stress among formal carers of dementia sufferers in nursing homes and in continuing care hospital wards have been investigated. Baillon et al (1996) investigated factors that contribute to high stress among staff in nursing homes who had no nursing background. Stress symptoms were high and job satisfaction was low among the staff group. Interestingly, aspects of the organisation were perceived as being as stressful as resident characteristics and behaviour. In view of these results it was suggested that staff support and training had not responded to the increasing demands on the staff group to cope with high levels of dementia and associated behavioural problems among residents. This was likely to have contributed significantly to the high levels of stress and low job satisfaction. Similarly, patients in psychiatric continuing care wards are a changing population with increasingly severe dementia and more behavioural symptoms. The cultural changes in approaches to dementia care have necessitated ongoing support and
training for nurses in order that they can meet demands and maintain a reasonable level of job satisfaction.

McGrath et al (1989) concluded that patient contact and administrative and organisational factors are the two major sources of low job satisfaction and stress for nursing staff in continuing care wards for elderly people. They reported evidence that administrative and organisational factors cause more stress than characteristics of patients for nurses of people with dementia. In this study nurses reported that the sources of highest stress were insufficient time to perform duties to their satisfaction and rationing of scarce resources. Only a small percentage of the nurses reported significant stress from the emotional demands of direct contact with patients.

Perhaps not surprisingly there exists an inverse correlation between job satisfaction and reported levels of stress in professional carers (Revicki et al, 1991).

Job satisfaction and attitudes of nursing staff on psychogeriatric wards were examined by Harper et al (1992). One of the conclusions of this study was that greater importance should be accorded to the organisational context of job satisfaction. Harper et al also suggested that job satisfaction should not be treated as a global, unidimensional and undifferentiated construct. Instead it is asserted that “job satisfaction and attitudes towards areas of work are not solely personal or even interpersonal: they are also organisational” (Harper et al, 1992).
Robertson et al (1995) carried out a study which aimed to identify the main correlates of job satisfaction among staff in psychogeriatric wards and to measure the effect of job satisfaction on the quality of care provided. Robertson et al found that staff in wards with a high reported level of job satisfaction offered a higher quality of care than staff in wards which reported a low level of job satisfaction. They speculated on “the nature of the relationship between job satisfaction and quality of care” and identified five possible explanations for the links established in their study between these two variables. Firstly, high levels of job satisfaction may cause high quality care. Secondly, the level of job satisfaction felt by staff may be determined by the quality of care they perceive is on offer. Thirdly, the above two factors may be linked through some kind of mutual feedback mechanism. Fourthly, the relationship may not be a directly causal one. Rather, the two variables may be linked through the influence of some third factor such as hospital or ward organisation which itself determines both job satisfaction and quality of care. The fifth suggested model is a combination of models three and four. The levels of both job satisfaction and quality of care being determined by the operation of ward/hospital management with these factors reinforcing each other through a process of mutual feedback. From the results of this study Robertson et al concluded “that measures to improve job satisfaction of nursing staff in psychogeriatric hospitals and units would produce benefits not only for the nursing staff themselves but for the quality of care offered to patients.”
Hallberg & Norberg (1993) investigated the effects of an intervention aimed at reducing feelings of stress and low job satisfaction for nurses caring for people with dementia. Their study focused on elements of the work directly related to patient care rather than aspects of the work environment as a source of these variables. The intervention was a two day course covering types of dementia, care of people with the disease and ideas and methods concerning individualised care using a psychosocial model. For the following twelve months clinical supervision was provided whereby staff had the opportunity to discuss particular problems as they arose on the ward. Nurses were encouraged and supported throughout to explore and analyse the needs and behaviour of individual patients. At the end of the twelve month period decreases in the nurses reported levels of stress and increases in their job satisfaction were related to changes in aspects of the nurse-patient relationship. Hallberg & Norberg concluded that the closer nurse-patient relationship and increased understanding of patients' behaviour resulted in higher levels of job satisfaction and lower stress for nurses.

In summary, job satisfaction is not a unitary concept. A complex relationship exists between job satisfaction and various aspects of the work environment, characteristics of patients and the relationship between nurses and patients. The quality of care provided is linked to nurses' job satisfaction and providing nurses with the means to increase quality of care has been shown to have a positive effect on job satisfaction.
In the present study a measure of job satisfaction was included in order to identify any relationships which might exist between job satisfaction (or dimensions of job satisfaction) and responses to the training intervention.

1.9 Aims and Hypotheses

Aims

The preceding literature review has highlighted nature of the currently changing culture in dementia care. In view of this, the present study aimed to develop and evaluate a training intervention for nurses in line with the changing culture. The aim of the training intervention was to raise awareness and encourage the use of psychosocial and person centred approaches to care, particularly as an alternative to drug treatments for the non-cognitive symptoms of dementia. The success of the training intervention in meeting this aim was assessed using a questionnaire specifically developed for this purpose. The questionnaire itself was examined in terms of its reliability and validity.

Hypotheses

1. Following exposure to the training intervention nursing staff would consider drug treatments for non-cognitive symptoms of dementia less appropriate than they had reported prior to the training.

2. The change in the nurses’ attitude would be reflected in their responses to the questionnaire measure.
3. Job satisfaction and other demographic variables would be mediating factors in response to the training material.
2.0 METHOD

2.1 Project Overview

In the United Kingdom, government policy (Department of Health, 1995), supported by the Royal College of Psychiatrists (Wattis & Fairburn, 1996), has encouraged local health authorities to develop stringent criteria for patients entering continuing psychogeriatric care. Severe behaviour disturbance is an important component of these criteria (Wattis & Fairburn, 1996) and so continuing care wards are likely to accommodate a high proportion of patients with behaviour disturbance. Consequently a need for training has arisen to ensure that staff have the resources to adapt to a changing patient population and a changing culture of dementia care.

This is the context within which the present project arose. Its purpose was to develop training materials related to non-pharmacological management of behavioural symptoms associated with dementia and to carry out an evaluation in terms of content and method of delivery.

The overall aim of the training was to impart information concerning the treatment of non-cognitive symptoms of dementia to as many nurses as possible without undervaluing existing knowledge and skills.

The following sections describe the development of the training and the rationale for its content, structure and method of delivery.
2.2 Development of Training at RCH

In developing the training two separate aspects clearly had to be addressed; firstly the method of delivery, and secondly, the content and structure of the material.

Method of Delivery

The majority of training opportunities for caregivers tend to be provided through externally run courses (Bowe & Loveday, 1995) and although these are valuable there may be difficulties for those who attend such courses in attempting to make changes when they return to the work place. For this reason it was decided to devise a training package and method of delivery which would be available to everyone working in the participating wards. The training was also intended to recognise existing skills and experience and to be highly relevant to day to day situations on the wards.

Practical and financial constraints meant that nurses were not readily available to leave shifts on the wards to attend training sessions. Training would therefore be made available at the nurses’ convenience rather than that of the trainers. Given these aims it was decided to use a modified “cascade” method of delivery for the training.

Cascade training has been defined as a “series of training processes each one occurring as the result of the one before” (Cheese, 1986). Cascade models of training delivery have been used extensively within business settings and for teachers where resources and in particular “personnel” are limited because they are unable to leave the work place to attend courses. The basic tenet of cascade is to draw in people who assimilate the content of the training themselves and then impart it to others.
In the present study the first step was the identification of nurses who would form a link between the steering group (two psychiatrists, one clinical psychology trainee and the nursing services manager) and the recipients of the training (nurses of all grades on all participating wards). These nurses would be the first step of the cascade. The nursing services manager identified eight volunteers from among trained staff on the wards to fulfil the role of "link nurses".

In deciding on the structure of presentation for the training material, rather than its content, it was necessary to consider the proposed method of delivery. When using a cascade model ambiguity must be avoided, since at each stage of the cascade the material may be embellished or added to in line with individual views and opinions. It was important therefore to provide material which presented information suitable for discussion but left as little as possible open to interpretation. For this purpose the material was presented to the link nurses in the form of concise notes for tutorials which could be carried out on the wards. The tutorials essentially formed the core of the training. Three sessions were spent with the link nurses to ensure that they were familiar with, and supportive of, the content of the material before they relayed it back to participants on the wards. In addition to the tutorial notes, a "workbook" containing case studies and discussion points was produced (see below for further details) and relevant supplementary literature and training materials were provided to each ward so that the core training could be expanded and pursued in more depth if required. The intention was that the core content of the training would be consistent across wards but each link
nurse would be responsible for relating this to situations, patients and experiences for participants during tutorial sessions which they would lead during shifts on the wards. Participants could then make whatever use they wished of the other material to elaborate upon the issues raised in tutorials.

Content and Structure

The content of the training intervention was based on three factors.

1. Review of the literature highlighted increasing interest in management of the non-cognitive symptoms of dementia. In particular, the greater emphasis now given to psychosocial aspects of the disease and non-drug interventions in dementia care. Although there was support for judicious use of medication for some non-cognitive symptoms, there was a general trend towards keeping medication to a minimum for patients with dementia. Much of the literature supported careful analysis of behaviour problems before implementing an intervention and the trial of non-pharmacological approaches before prescribed medication.

2. The SIGN guideline provided some specific advice regarding good practice in the management of non-cognitive symptoms. The SIGN guideline was adopted as an audit standard and the training designed as a potential means of achieving this.

3. The audit of case notes raised awareness of areas where recording (and possibly clinical practice) could be improved in accordance with the guideline.
Identification of Training Needs

A questionnaire (Appendix 1) was designed to identify the nurses’ perceived training needs and a pilot study was carried out with staff from a psychogeriatric assessment ward. Several ambiguities in the design of the questionnaire were identified and resolved. An explanation of the terms “cognitive” and “non-cognitive” was also included before the questionnaire was circulated amongst the participating wards.

The questionnaire consisted of a list of eight topics considered for inclusion in the training. Nurses were asked to estimate their level of knowledge on the topics and to register this on a scale ranging from 1 (very little) to 4 (a great deal). Scores for each of the topics were obtained. The topics with the lowest scores representing areas of least knowledge and therefore most training need.

The areas of perceived training needs were identified as follows (in descending order of perceived need).

1. Dementia with Lewy bodies.
2. Cognitive symptoms of dementia.
5. Observation and monitoring of behaviour.
6. Physical illness presenting as non-cognitive symptoms.
7. Side effects of medication presenting as non-cognitive symptoms.
These eight initial topics were condensed into four broader areas. The topics were presented in the form of concise notes for four tutorials. The supplementary booklet containing relevant discussion points and case studies was included a ring binder with the tutorials. From the initial stages of development the link nurses provided input into the proposed content of the training material. This ensured that they were extremely familiar with the topics which they would later be teaching.

All material was provided in cellophane loose leaf pockets within a ring binder. This was to ensure that material could be easily photocopied and supplied to individual participants as required.

The supplementary booklet containing case studies and discussion points was also presented in this way. For each core point in the tutorials a relevant case or point of discussion was provided. This format was intended to be as informal, non-threatening, interactive and relevant as possible.

A selection of further reading in the form of journal articles and published research was gathered and presented as “Further Reading” in the folder (Appendix 3 - Reference list for “Further Reading”).

The whole folder was then supplemented with a range of other material relevant to the core topics. All items were reviewed by at least one of the link nurses and the steering group before their inclusion. A list of supplementary material is presented in Appendix 4.
2.3 Evaluation of the Training

As mentioned previously (see Introduction) Gosnell (1984) identified a conceptual framework for the evaluation of continuing education nurse training programmes. Four levels of evaluation strategy were suggested (level 1, perceptual-opinion evaluation, level 2, measurable learning evaluation, level 3, behavioural performance evaluation and level 4, out-come results evaluation).

The first two types of evaluation strategies are within the scope of the present study although “measurable learning” implies that some kind of knowledge test might be employed to assess change, whereas the present study is concerned with changes in attitudes rather than in knowledge per se.

Measures

1. Demographic information was collected from all subjects. This included:

   Age

   Sex

   Length of time working in dementia care

   Nursing grade
2. All participants in the training were asked to complete an evaluation questionnaire to express their opinion of several aspects of the training including: usefulness, relevance, interest, method of presentation of materials, and method of delivery.

All link nurses were subjected to a semi-structured interview in order to gather qualitative data regarding their experiences of the training intervention. Of particular interest were problems inherent in the cascade model of delivery.

4. A questionnaire was specially developed to measure changes in attitude towards the appropriateness of psychotropic drugs for the treatment of non-cognitive symptoms (Appendix 5).

The questionnaire was based on a previous design used to measure the expectations of different groups of professionals towards neuroleptic response in behavioural problems associated with dementia (Thacker 1996).

The questionnaire comprised the following vignette:

Mrs A. is an 82 year old woman, with an established diagnosis of Alzheimer type dementia but no previous psychiatric history. She had until three months ago been settled on the hospital ward but she has gradually developed behavioural disturbance. A medical examination has revealed no evidence of physical illness.
If Mrs A. were a patient in your ward and she developed any of the following behaviours how appropriate do you think treatment with psychotropic medication (i.e. any of the drugs commonly used to treat psychiatric problems) would be.

Respondents were asked to register their views as to the appropriateness of drug treatment for twelve non-cognitive symptoms of dementia on a four point Likert-type scale ranging from 1) definitely appropriate to 4) definitely inappropriate. No “undecided” category was included so that respondents were forced into a decision tending towards either “appropriate” or “inappropriate”.

The non-cognitive symptoms included were extracted from those listed in the Behavioural Pathology in Alzheimer’s Disease (BEHAVE-AD) Rating Scale (Reisberg et al, 1996). The BEHAVE-AD was developed specifically to measure behavioural disturbances in dementia separately from associated cognitive and functional disturbances. In developing the scale Reisberg and colleagues identified specific types of behavioural disturbance that commonly occurred in patients with dementia. Symptoms resulting primarily from cognitive or functional impairments were not included. Further research has since confirmed the reliability and validity of the BEHAVE-AD (Patterson et al 1990; Sclan et al 1996). Items collated from this scale for use in the present study were likely to have high content validity i.e. to reflect behaviours which nurses would encounter frequently in caring for people with dementia.
The reliability and validity of the Non-cognitive Symptoms of Dementia Questionnaire were examined.

5. A job satisfaction questionnaire (Appendix 6) previously developed and shown to be reliable and valid (Warr et al 1969,1979; Mountain et al, 1990) was distributed among participants and non-participants in the training. The overall job satisfaction measure generates two sub-scales, namely Intrinsic and Extrinsic Job Satisfaction. Items included in the intrinsic job satisfaction measure relate to aspects of the work itself. Items on the extrinsic scale relate to environmental factors.

Items comprising each scale are listed below.

<table>
<thead>
<tr>
<th>Intrinsic Job Satisfaction</th>
<th>Extrinsic Job Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom to choose your own method of working.</td>
<td>The physical working conditions.</td>
</tr>
<tr>
<td>The recognition you get for your work.</td>
<td>Your fellow workers.</td>
</tr>
<tr>
<td>The amount of responsibility you are given.</td>
<td>Your rate of pay.</td>
</tr>
<tr>
<td>The opportunity to use your ability.</td>
<td>Relations between bosses and workers in the hospital.</td>
</tr>
<tr>
<td>Your chance of promotion.</td>
<td>The way the ward is managed.</td>
</tr>
<tr>
<td>Attention paid to suggestions you make.</td>
<td>The hours of work.</td>
</tr>
<tr>
<td>The amount of variety in your work.</td>
<td>Your job security.</td>
</tr>
</tbody>
</table>
Population

The population included in the study comprised trained and untrained nursing staff employed on the eight participating wards during a period of five weeks designated as the evaluation period. Participation in the training and completion of the questionnaires was voluntary. Data were therefore available from 8 link nurses, 26 participants in the training and 25 non-participants who comprised the control group.

Experimental Design

A simple pre-test/post-test design using the Non-cognitive Symptoms Questionnaire was used to test the hypothesis that following participation in training there would be a change in nurses' attitudes towards the prescription of psychotropic drugs in the treatment of non-cognitive symptoms of dementia. The questionnaire was administered three weeks prior to the start of the five week period allocated to training for evaluation and again within a week following the five week period to those participants who had completed the four tutorials in discussion sessions with the link nurse on their ward. The questionnaire was also administered for a second time to nurses who had not used any of the training material. This group formed a control group.

The Job Satisfaction Questionnaire was administered in all wards at the start of the five week training period.
Demographic information was collected along with the pre-training Non-cognitive Symptoms Questionnaires. Respondents were asked to supply the initials of their mother's maiden name so that pre and post training questionnaires could be matched but remain anonymous.
3.0 RESULTS

The main questions addressed in evaluation of the training were:

1. How effective was the cascade method of delivery in providing training opportunities to nurses on the wards?

2. How effective was the training in terms of participant satisfaction (Gosnell’s level 1 evaluation).

3. Were there measurable changes in attitudes following the training?

4. How effective was the Non-cognitive Symptoms of Dementia Questionnaire as a measure of attitude change?

5. How did job satisfaction relate to the efficacy of the training?

3.1 The Cascade and Participant Satisfaction

The efficacy of the cascade was assessed in terms of 1) the number of participants completing the “core training” (i.e. the four tutorials) over the allocated time span, 2) their reported satisfaction with the method of delivery and 3) qualitative data obtained regarding the experiences of the link nurses in using this approach.

On two of the wards no recorded use was made of the training materials during the five weeks. Non-participation on these wards was due to understaffing, the re-location of wards within the hospital and staff on sick or holiday leave during this period. Non-
participation did not reflect lack of enthusiasm or support for the training on the part of the link nurses.

On the remaining six wards several staff completed some of the tutorials in discussion sessions led by the link nurse and/or used the materials supplementary to the tutorial notes. On one ward no questionnaire data were available although several nurses had completed the tutorials. This was due to an administrative error of a type inherent in field research.

For the purpose of data collection inclusion in the “experimental group” was restricted to those nurses who had completed the four tutorials during the allocated five weeks.

The control group were recruited from the wards who had made no use of the training materials during the same time period.

Twenty one of the twenty six nurses who participated in the training completed a Training Evaluation Questionnaire (Appendix 7) within ten days of completing the tutorials. All 21 respondents reported using the tutorial notes. Fourteen of these respondents also reported using the booklet containing case studies and discussion points. Eight respondents reported making use of the supplementary material supplied to each ward in addition to the tutorial notes and case studies.
Table 1 presents frequencies of responses under each category for various aspects of the training including cascade delivery.

Table 1

<table>
<thead>
<tr>
<th>Category</th>
<th>Response Options</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Interest of the material</td>
<td>Very interesting</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Interesting</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Uninteresting</td>
<td>0</td>
</tr>
<tr>
<td>b) Relevance of the material</td>
<td>Very relevant</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Relevant</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Irrelevant</td>
<td>0</td>
</tr>
<tr>
<td>c) Novelty of the material</td>
<td>Mostly novel</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Some novel</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Very little novel</td>
<td>9</td>
</tr>
<tr>
<td>d) Was the training useful?</td>
<td>Yes</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>2</td>
</tr>
<tr>
<td>e) Has your practice changed?</td>
<td>Yes</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>2</td>
</tr>
<tr>
<td>f) Were ward sessions effective?</td>
<td>Yes</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>0</td>
</tr>
<tr>
<td>g) Was the link nurse effective?</td>
<td>Yes</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>0</td>
</tr>
<tr>
<td>h) Will you participate in future similar training?</td>
<td>Yes</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>5</td>
</tr>
</tbody>
</table>
The questionnaire invited respondents to make any further comments they wished on any aspect of the training.

No positive comments were elicited. Four participants said that they felt there was insufficient time during shifts to cover the topics in detail. Two of these participants and a further three pointed out that there had been numerous interruptions to training sessions on the wards.

In summary, use of the cascade resulted in 26 nurses completing the core training over a five week period. Those who responded to the questionnaire were generally in favour of the training being initiated by a colleague with whom they were familiar (the link nurses). Training within the ward setting during shifts however was not so well received due to time constraints and interruptions.

As reported in Table 1 above, satisfaction with the content of the training material was high. Three participants made spontaneous positive comments with respect to their level of interest in the topics. One participant commented that it would be difficult to implement the practices recommended in the tutorials because the wards were often understaffed and reliant upon part-time and temporary staff for cover.

Feedback from the Link Nurses

Qualitative investigations typically report linguistic rather than exclusively numeric results (Stiles, 1993). Since there were only eight link nurses involved in the present study it would not have been appropriate to analyse their feedback statistically. Because of the
practical/field study nature of this research, a familiar, informed investigator was seen as a positive aspect of the design rather than a confounding factor in data collection.

Feedback from the link nurses was obtained during informal discussion both individually and as a group and by circulating a questionnaire regarding general aspects of their involvement with the project. The following summary includes only those themes or comments which were raised by two or more of the link nurses either during discussion or in response to the questionnaire.

It is important to note that the link nurses all volunteered to participate in this project and were therefore a self-selected population who were likely to have been motivated and in favour of training before their involvement. In the development of the package the group as a whole was interested, enthusiastic and supportive of the aims of the training. All of the link nurses were qualified and one was also the ward manager. Four of the link nurses had some prior experience in teaching.

Five of the eight link nurses completed a questionnaire relating to the delivery of the training and their experiences of leading discussions based on the tutorial notes.

Participants were recruited during shifts, in most cases simply by a request from the link nurse. All the link nurses reported that staff were keen to participate. Four pointed out that they had experienced some initial difficulty in persuading participating nurses to enter into discussions on the tutorial topics. It was noted that participating nurses were of the opinion that they had been “in the job too long” and were too “old” to begin to change
established practice. Link nurses agreed however that with encouragement participants became more relaxed and open. All link nurses said that their ward manager had been supportive of the training.

Items concerning the quality of training materials, clarity of content, interest, relevance and usefulness were rated by all of the link nurses as “good” on a three point scale ranging from poor to good.

All the link nurses reported that there was insufficient time during shifts for training and that more specifically allocated time would improve the depth and detail of discussion.

An important point raised was that of continued input being required in order to maintain the momentum and interest in the training. There was also a suggestion that nursing assistants should be given some form of recognition for their participation in training interventions such as this.

3.2 Changes in Attitude following the Training

The next section of the evaluation is concerned with changes in attitude for the 26 participants following training and the questionnaire employed to measure this.

A data file was prepared on a Microsoft Excel Spreadsheet and analysed using the Statistical Package for the Social Sciences (SPSS) for Windows.

Firstly, the data were explored to check for outliers and to study distributions in order to ascertain whether parametric or non-parametric analyses were most appropriate.
For the appropriate use of parametric statistics the data must represent groups which are independent random samples derived from normal distributions with equal variance.

The Kolmogorov-Smirnov Goodness of Fit Test was used to check that the measures did not differ significantly from the normal distribution. The Levene Test for Homogeneity of Variance was used to check that the variance of the populations did not differ significantly. All were found to meet the criteria for analysis using parametric statistical methods.

For clarity, the group which participated training will be referred to as the “experimental group” and the group which did not participate in training will be referred to as the “control group”.

Demographic Details

Chi-square analysis was used to investigate differences between the groups in terms of ratio of male to female nurses. The results are shown in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Experimental Group (N = 26)</th>
<th>Control Group (N = 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female 23 (88.5%)</td>
<td>Female 22 (88%)</td>
</tr>
<tr>
<td>Male 3 (11.5%)</td>
<td>Male 3 (12.5%)</td>
</tr>
</tbody>
</table>

There was no significant difference in sex ratio between the groups (Chi-square = 0.003).
Tables 3a and 3b show the mean age and time in dementia care for the two groups

**Table 3a**

<table>
<thead>
<tr>
<th>Control Grp. N=25</th>
<th>Mean</th>
<th>S.D.</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in dementia care</td>
<td>11.40</td>
<td>7.71</td>
<td>1.00</td>
<td>27.00</td>
</tr>
<tr>
<td>Age</td>
<td>42.9</td>
<td>10.04</td>
<td>24.00</td>
<td>60.00</td>
</tr>
</tbody>
</table>

**Table 3b**

<table>
<thead>
<tr>
<th>Experimental Grp. N=26</th>
<th>Mean</th>
<th>S.D.</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in dementia care</td>
<td>10.42</td>
<td>6.97</td>
<td>1.00</td>
<td>24.00</td>
</tr>
<tr>
<td>Age</td>
<td>42.62</td>
<td>9.29</td>
<td>25.00</td>
<td>58.00</td>
</tr>
</tbody>
</table>

Two tailed unrelated t-tests revealed that there were no significant differences between the control group and the experimental group in term of age ($t = .91, df = 49, p < .01$) and time spent in dementia care ($t = .64, df = 49, p < .01$).

It was intended that nurses of all grades would have the opportunity to participate in the training.

Table 4 shows the distribution of nursing grades within the experimental and control groups.
Table 4

<table>
<thead>
<tr>
<th>Experimental Grp.</th>
<th>Control Grp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>Grade</td>
</tr>
<tr>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>16 (61.5%)</td>
<td>12 (48%)</td>
</tr>
<tr>
<td>B</td>
<td>D</td>
</tr>
<tr>
<td>4 (15.4%)</td>
<td>6 (24%)</td>
</tr>
<tr>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>2 (7.7%)</td>
<td>5 (20%)</td>
</tr>
<tr>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>3 (11.5%)</td>
<td>1 (4%)</td>
</tr>
<tr>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td>1 (3.8%)</td>
<td>1 (4%)</td>
</tr>
</tbody>
</table>

In both groups the majority of nurses were Grade A; that is untrained nursing assistants. Chi-square analysis revealed that there was no significant differences between the groups in terms of nursing grades (Chi-square = 8.05, p = .15 (NS)).

In summary, there were no significant differences between the control and experimental groups in terms of sex ratio, age, number of years working in dementia care or nursing grades. There were no significant differences in age or time in dementia care between wards.

The Non-cognitive Symptoms Questionnaire was administered to both groups three weeks prior to training and within one week of completion of the core training.
Data obtained from the Non-cognitive Symptoms of Dementia Questionnaire were examined.

A repeated measures ANOVA was carried out to examine the data in relation to a main effect of group, overall main effect pre and post training and interaction between main effects (see Table 5).

Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Pre-training</th>
<th>Post-training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>30.00</td>
<td>24.73</td>
</tr>
<tr>
<td>Control group</td>
<td>30.50</td>
<td>30.13</td>
</tr>
</tbody>
</table>

There was a significant main effect of group (F = 6.84, df(1,48) p < .05) and a significant main effect of pre / post training (F = 7.30, df(1,48) p < .05).

A significant interaction (F=5.49, df(1,48) p<.05) was found for group by pre and post training score.

A two-tailed t-test was carried out on the total Non-cognitive Symptoms of Dementia Questionnaire scores for the groups pre and post training. The results are presented in Table 6.
Table 6

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-training</td>
<td>30.24</td>
<td>6.11</td>
</tr>
<tr>
<td>Post-training</td>
<td>27.32</td>
<td>5.28</td>
</tr>
</tbody>
</table>

C.I. = 95%  \( t = 2.68, \) df = 49  
Sig. = .01  

Over the whole population (i.e. experimental group and control group) there was a change in scores on the questionnaire after training although this was not statistically significant.

In order to identify the specific items on the questionnaire which accounted for significant changes in scores the pre and post-training means for each variable on the Non-cognitive Symptoms Questionnaire were examined and are presented in Table 7.
Table 7

Pre and Post-training Means for the Experimental Group and the Control Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control group</th>
<th>Experimental group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-training</td>
<td>Post-training</td>
</tr>
<tr>
<td>Agitation</td>
<td>2.59</td>
<td>2.81</td>
</tr>
<tr>
<td>Food refusal</td>
<td>1.81</td>
<td>1.72</td>
</tr>
<tr>
<td>Inappropriate sexual behav.</td>
<td>2.13</td>
<td>2.14</td>
</tr>
<tr>
<td>Paranoid ideas</td>
<td>2.54</td>
<td>3.27</td>
</tr>
<tr>
<td>Physical aggression</td>
<td>3.00</td>
<td>3.05</td>
</tr>
<tr>
<td>Resisting physical care</td>
<td>2.64</td>
<td>2.50</td>
</tr>
<tr>
<td>Persistent screaming</td>
<td>3.14</td>
<td>3.45</td>
</tr>
<tr>
<td>Shouting at hallucinations</td>
<td>3.04</td>
<td>3.50</td>
</tr>
<tr>
<td>Sleep disturbance</td>
<td>2.41</td>
<td>2.41</td>
</tr>
<tr>
<td>Tearfulness and apathy</td>
<td>2.95</td>
<td>2.68</td>
</tr>
<tr>
<td>Inappropriate toilet habits</td>
<td>1.95</td>
<td>1.36</td>
</tr>
<tr>
<td>Wandering</td>
<td>2.00</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Multivariate analysis of variance (MANOVA) was used to investigate pre and post training within subject effects thereby identifying the variables which showed a significant
interaction by pre and post training. Table 8 illustrates the variables for which a significant interaction was revealed.

Table 8

*Interaction: Training by Pre & Post Training Measure*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statistic (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agitation</td>
<td>19.03 *</td>
</tr>
<tr>
<td>Physical aggression</td>
<td>7.75 **</td>
</tr>
<tr>
<td>Inappropriate sexual behav.</td>
<td>4.81 **</td>
</tr>
<tr>
<td>Persistent screaming</td>
<td>21.6 **</td>
</tr>
</tbody>
</table>

Note: * p < .001, ** p < .05

Table 8 shows that the variables on the Non-cognitive Symptoms Questionnaire which show a significant change post training are: agitation, physical aggression, inappropriate sexual behaviour and persistent screaming.

Data were analysed across wards. Analysis of variance revealed that there were no significant differences across wards on the Non-cognitive Symptoms Questionnaire pre-training (F = .86, df(5,48) p = .51). However, there was a significant difference between wards in post-training scores on the Non-cognitive Symptoms of Dementia Questionnaire (F = 5.57, df(5,47) p < .05). Further analysis using the Tukey-HSD test with significance level at .05 revealed that there were no significant differences between the wards.
comprising the experimental group but that the two wards comprising the control group maintained questionnaire scores which were significantly higher than those from the other wards.

3.3 Reliability and Validity of the Non-cognitive Symptoms of Dementia Questionnaire

1. Validity

The question of validity for a measure alludes in part to the extent to which that measure actually measures the concept that it purports to measure.

The issue of content validity for the Non-cognitive Symptoms of Dementia Questionnaire was addressed by including variables which previous research had shown to be valid in terms of commonly occurring non-cognitive symptoms of dementia.

A pilot study using the questionnaire confirmed that it possessed satisfactory face validity i.e. respondents felt that the content of the questionnaire reflected the concept in question, namely, attitudes towards the appropriateness of drug treatments for specific non-cognitive symptoms of dementia.

Although not investigated statistically, convergent validity (i.e. the extent to which one measure corresponds or converges with a different measure of the same concept) was demonstrated by the fact that the responses to the questionnaire concurred with a separate criterion, namely data from the audit. The four most commonly cited non-
cognitive symptoms given as reasons for prescriptions of psychotropic drugs were amongst those for which psychotropic drug treatment was rated (pre-training) most appropriate on the questionnaire.

Table 9 shows the percentage of recorded reasons for prescriptions of psychotropic medication according to the audit in relation to the four non-cognitive symptoms scoring highest on the questionnaire.

Table 9

<table>
<thead>
<tr>
<th>Non-cog. symptom</th>
<th>Audit %age</th>
<th>Mean on quest.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression</td>
<td>21</td>
<td>3.00</td>
</tr>
<tr>
<td>Agitation</td>
<td>9</td>
<td>2.95</td>
</tr>
<tr>
<td>Psychotic symptoms</td>
<td>9</td>
<td>2.59</td>
</tr>
<tr>
<td>Depression</td>
<td>7</td>
<td>2.54</td>
</tr>
</tbody>
</table>
2. Reliability

Internal reliability was investigated using Cronbach’s Alpha. The correlation co-efficient generated was .82. The generally accepted threshold for satisfactory internal reliability is 0.80.

Reliability was explored further by using the responses provided by the control group to examine test-retest reliability over the five week period allocated to training.

Table 3 illustrated that the mean total score for the control group on the Non-cognitive Symptoms Questionnaire did not change significantly following training. However further analysis of this using Pearson’s correlation coefficient (two-tailed significance, N = 26) revealed that the questionnaire did not possess a satisfactory level of test-retest reliability (R = -0.12). Overall a slight negative correlation was shown. Again .80 is the value generally accepted for test-retest reliability.

This result was investigated further by re-examining the post-training scores of this group in terms of internal reliability. The reliability co-efficient (Alpha) was noted to drop to 0.62 for this group.
3.4 Job Satisfaction and Training Efficacy

The job satisfaction questionnaire was distributed among all wards at the start of the five weeks allocated to training for evaluation.

Correlations were computed for age, and years in dementia care and job satisfaction over the whole population (see Table 10).

Table 10

<table>
<thead>
<tr>
<th></th>
<th>Age (N =50)</th>
<th>Time in dem. care (N =51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction (N =46)</td>
<td>r = -0.26, p = 0.08</td>
<td>r = -0.14, p = 0.36</td>
</tr>
</tbody>
</table>

The above table illustrates a negative correlation between job satisfaction and both age and length of time in dementia care.

Nurses with low scores on the job satisfaction questionnaire were likely to be older and to have spent longer working in dementia care.

A two-tailed t-test was carried out in order to discover any differences on this measure between the control group and the experimental group.

Table 11

_T-test of job satisfaction for the control group and the experimental group._

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>df</th>
<th>2-tail signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expt. grp. (N = 25)</td>
<td>64.88</td>
<td>4.62</td>
<td>3.13</td>
<td>28.95</td>
<td>0.004</td>
</tr>
<tr>
<td>Cont. grp. (N = 21)</td>
<td>58.19</td>
<td>8.85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

95% C.I. = 2.31, 11.07.
Table 11 shows that there is a significant difference in levels of reported job satisfaction between the experimental group and the control group. It is important to note however that the experimental and control groups were drawn from different wards.

No significant differences were found between wards in terms of age or length of time in dementia care so these variables could not account for the significant difference in levels of job satisfaction.

Table 12 presents the means on job satisfaction for each ward.

Table 12

<table>
<thead>
<tr>
<th>Ward</th>
<th>Mean job satisfaction</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (N = 6)</td>
<td>64.17</td>
<td>4.49</td>
</tr>
<tr>
<td>2 (N = 6)</td>
<td>70.33</td>
<td>3.50</td>
</tr>
<tr>
<td>3 (N = 5)</td>
<td>63.60</td>
<td>2.88</td>
</tr>
<tr>
<td>4 (N = 6)</td>
<td>62.50</td>
<td>3.50</td>
</tr>
<tr>
<td>5 (N = 12)*</td>
<td>55.17</td>
<td>8.51</td>
</tr>
<tr>
<td>6 (N = 9)*</td>
<td>62.22</td>
<td>7.99</td>
</tr>
</tbody>
</table>

* Wards comprising the control group.
Further analysis of variance revealed that this significant difference could be accounted for by ward 2 in the experimental group whose job satisfaction was significantly higher than that reported for the other wards ($F = 4.94$, df $(5,38)$ p < .05).

Examination of external and internal job satisfaction for the control group revealed that there was a significant difference between these measures ($t = 9.60$, df$(20)$, p < 0.01) for this group.

Multiple regression techniques were used to investigate potential predictors of the post-training score on the Non-cognitive Symptoms Questionnaire.

When the variables job satisfaction, time in dementia care and training group (experimental or control) were examined as independent variables the following regression equation was derived.

\[
\text{Total } B' = -0.29 \text{ (job satisfaction)} + -0.09 \text{ (time in dementia care)} + -0.36 \text{ (training group)} + 46.68.
\]

(The coefficients presented above are standardised as each variable had a different scale of measurement).

The regression equation resulted in the following data which shows a significant effect for training and job satisfaction (see Table 13).
Table 13

<table>
<thead>
<tr>
<th></th>
<th>Mult. R</th>
<th>R</th>
<th>Sig. of R</th>
<th>Final Equ. β</th>
<th>Sig. T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satis.</td>
<td>0.55</td>
<td>0.29</td>
<td></td>
<td>-0.29</td>
<td>0.05</td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
<td>-0.36</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Post training score on the Non-cognitive Symptoms Questionnaire can be predicted in part by participation in training and level of job satisfaction.
4.0 DISCUSSION

The results of the present study are generally in support of the conclusion stated by Harrison & Novak (1988) that, “short-term educational programmes........ are effective in enhancing nurses’ knowledge of and attitudes towards elderly people with dementia”.

The present study differed from the two studies of training interventions described in the Introduction (Moniz-Cook et al 1998; Shah & Tamal 1998) most significantly in its approach to delivery of the training. Both previous studies used didactic teaching methods to impart information to the nurses. In both cases the tutor was either a psychiatrist or a clinical psychologist who may have been perceived by nurses as somewhat distant or unaware of the reality of caring for people with dementia on a long-term basis. Although one of the studies reported an initial positive effect of training this was not maintained at follow-up three months later. Results of the other study were inconclusive and no long-term follow-up was reported. Although the content of the present study was comparable to previous studies the method of delivery had little in common with them.

Burgio & Burgio (1990) found an absence of organised research on methods for training staff in long-term care settings and stated that the majority of untrained staff in these settings are older than their counterparts in acute healthcare and have a significant amount and variety of work experience. Burgio & Burgio (1990) suggested that new information must therefore be incorporated into existing knowledge and ideas. “The educator’s style
and training methods must show adult learners that previous experience is valued and that new information can build on existing knowledge” (Burgio & Burgio, 1988).

Inglis (1992) defined teaching as communicating information that is meaningful to the learner in an interactive way and suggested that adult learners must perceive the relevance of the information and actively participate in the learning process.

In view of this, for the present study no time in training was spent in didactic teaching. The link nurses were involved in the development of the training materials and were encouraged to present it to participants in a way which would value their prior learning and experience.

The outcome of this approach will be discussed in relation to the five questions listed previously.

4.1 Delivery of the Training - The Cascade Model

During the five weeks allocated as a “time sample” for evaluation of the training twenty six nurses from five wards out of the original eight completed the core elements of the training (the four tutorials). All participants in the training provided feedback which was favourable regarding colleagues acting as a tutors. The intention of implementing a cascade delivery for the training was to filter the training down so that eventually nursing assistants would be in a position to use the material in the tuition of their peers. Essentially, the link nurses formed the first step of the cascade.
Cascade training is most often described in relation to its use in business settings or within the teaching profession (Cheese, 1986; Ashman, Gott & Morrison 1989). In these settings the main benefit has been its potential to disseminate information to large numbers of people within a short time span. Usually there are many successive tutors who in turn tutor others to teach the material so that at every stage more people are exposed to it. In large business organisations this may be an economical and effective way to provide training but for the present study it was more appropriate initially to include as few successive steps as possible. This was to ensure that distortion of the training content was minimised and did not become a confounding factor in its evaluation.

The model was adapted for the present study by ensuring that the cascade was "steep" i.e. there was only one tutor (the link nurse) between the source of the training (the steering group) and its intended recipients. With a shallow cascade there is greater potential for personal interpretation of information and therefore more distortion at each stage. In the present study ambiguity in the training material was minimised and it was ensured that all the link nurses were familiar with and supportive of the content of the material before they began to teach it on the wards. They were committed to the values and views inherent in the training having had considerable input to the development of the material.

Because the cascade in this study was steep and there was a time span allocated to the delivery of the training of only five weeks the number of participants was not as high as might have been expected. The fact that the five weeks covered the summer holiday
period meant that staff were not available consistently over the period either to deliver the training or to participate in it. There were, however, several advantages of having the training led by peers rather than delivered by an external teacher.

Firstly, nurses who may not have been consistently available to attend training sessions out of the wards had the opportunity to participate. Kogan & Novak raised the issue of difficulties in arranging training schedules to enable nurses to attend training sessions. They ran a training programme twice each week and noted that only 14 % of intended participants were able to attend all four training sessions. In the present study a similar percentage completed the four core training tutorials but the training was not intended to be completed over a finite number of weeks and only five weeks were included in the time during which the training was evaluated. All the other studies of training interventions identified in the literature involved considerable resources in terms of tutor’s time. For example, Shah & Tamal (1998) reported a training intervention which employed either a psychiatrist or a clinical psychologist for 45 minute sessions, twice per week for six weeks. Training out of the wards would also have necessitated nurses’ time being covered by other staff which would have involved considerable financial commitment.

Secondly, the link nurses’ objective was twofold; to present and explain the material effectively and to demonstrate good practice by example. Link nurses could convey the training material to their peers without generating resentment or defensiveness which may have occurred with an external teacher. Also link nurses were in a position to convey
information about new approaches without being perceived as critical of current practice. They could ensure that the material was relevant by encouraging participants to relate the material to people and events on their ward. Feedback from the link nurses highlighted the difficulty they experienced in encouraging participants to openly discuss their own experiences relating to the topics in the tutorials. It seems likely that this difficulty would have been greater had the tutorials been led by an unfamiliar, external teacher. Link nurses reported that once participants had adjusted to a novel learning format they became active participants. This is reflected by the fact that all participants rated the use of a link nurse as an effective teaching strategy.

In summary, the cascade delivery of training appears to have been well received and resulted in an acceptable level of reported satisfaction from both the link nurses and participants in the training. Criticisms arose concerning the training sessions being held on the wards rather than concerning the cascade method per se. Future development might usefully begin to include further stages in the cascade, i.e. the link nurses training others in the use of the materials thereby increasing opportunities for participation. Continued evaluation of the cascade would be required, particularly regarding distortion of the training content.
4.2 The Content of the Training

Having examined the method of delivery of the training the next question concerns satisfaction with its content. This is in accordance with Gosnell’s level 1 evaluation and was assessed by means of the Training Evaluation Questionnaire. Details of the responses to this measure are provided in the Results section.

In general participants rated the training content as interesting and relevant to their work. The training was perceived as useful and eighteen participants reported that their practice had changed as a result. Although further details of this were not available, two of the link nurses reported that behaviour problems were being specified in more detail since the training had been initiated. The majority of participants reported that they would participate in similar training if this were available in future. Overall the level of participant satisfaction with the training was acceptable.

4.3 Attitude Change

The next stage in evaluation of the training was to assess its impact on those who participated. This represents level two in Gosnell’s model of evaluation although in the present study changes in attitude rather than in knowledge are assessed.

The training provided nurses with knowledge about the non-cognitive symptoms of dementia with the aim of changing their attitudes towards the appropriateness of treating these symptoms with psychotropic medication. Evaluation of the training therefore
focused on attitude changes in participants following training. Zimbardo et al (1977) suggested that “if underlying attitudes are changed, more enduring and pervasive changes in behaviour should be produced than if only the specific behaviour is changed.... by changing attitudes, one should be able to produce many specific changes in overt behaviour”. This suggestion lends support to the assessment of attitude changes as appropriate in the evaluation of training. Collins (1994) measured attitude changes in nurses following attendance at a training programme concerning the prevention and management of aggressive behaviour. Collins (1994) reported that in this study the training programme had a positive effect on the attitudes of staff towards aggressive patients. Collins’ study was similar to the present study in that attitudes per se were not directly challenged. Attitude changes were seen as an indirect result of increasing the participants’ knowledge of aspects of aggressive behaviour such as predisposing and precipitating factors as well as techniques to prevent and manage aggression. Similarly, in the present study nurses were presented with comparable information concerning the non-cognitive symptoms of dementia. Evaluation of the training in the present study focused on attitude change as a function of increased knowledge. To measure knowledge base pre and post training may have been perceived as threatening and have discouraged participation. Changes in attitudes were also likely to reflect that knowledge had been processed and assimilated in a meaningful way rather than rote learned for an expected assessment.
4.4 The Measure - The Non-cognitive Symptoms Questionnaire

Although development of the questionnaire was not the main purpose of this study, the validity and reliability of any measure used in evaluation is of obvious importance. The question of validity has been discussed previously (Results Section) and appeared to be satisfactory. The measure possessed high face validity and was congruent with an independent measure of the same concept. Investigation of the questionnaire’s reliability proved more problematic however. The Cronbach’s Alpha test carried out using all the available pre-training questionnaires, revealed that the internal reliability of the measure was acceptable. That is, the items included in the questionnaire were relatively homogenous and likely to provide a coherent measure of the same concept. The fact that the questionnaire scores changed significantly for the experimental group following training is testament to its sensitivity as a measure of change. In view of the above points the results of the test-retest reliability investigation were unexpected. Two potential reasons for this disparity were identified. Firstly, concerning the scale rather than the items included in the measure. Generally, Likert-type scales consist of five possible response point with a central option of, or equivalent to, “undecided”. On the Non-cognitive Symptoms Questionnaire only four points were included. The rationale for this being that as a measure of attitude there were no better or worse responses and respondents would tend towards on end of the scale or the other, i.e. either “appropriate” or “inappropriate”. An “undecided” option may have resulted in respondents avoiding an expression of their opinion. However, the results seem to reflect the fact that
respondents who were "undecided" simply chose a point on the scale at random rather than with consideration. Respondents who changed their response at re-test administration would have weighted the data in the opposite direction to that which they had on the initial test. Collapsing the two central data points into one option however had little effect on the reliability co-efficient. A second possible factor which is perhaps more likely to account for the discrepancy in reliability lies in the fact that the questionnaires were not administered under standardised conditions. Respondents may have conferred with each other and attempted, as a result of speculation as to the purpose of completing the same questionnaire twice, to answer differently on the second occasion. Support for this theory arises when the decreased internal reliability on re-test for the control group is considered.

In summary, there is considerable evidence to support the Non-cognitive Symptoms Questionnaire as a valid and reliable measure of attitude change following training. The anomalous test-retest result is likely to have arisen partly in response to deficiencies of the scale and partly in response to the conditions under which the re-test questionnaire was completed. Further investigation of these points is necessary before further use of this measure.

The results of the present study clearly showed that following participation in the training there were measurable changes in attitudes towards psychotropic medication for the treatment of non-cognitive symptoms of dementia. Immediately after training nurses
were less likely to perceive treatment with psychotropic medication as appropriate
treatment for behavioural problems.

Of the twelve non-cognitive symptoms included in the questionnaire a decrease in
perceived appropriateness of treatment with psychotropic drugs was reflected in the
scores on ten items. However the change only reached the level of statistical significance
on four of these items, namely, agitation, physical aggression, inappropriate sexual
behaviour and persistent screaming. It is interesting to note that these behaviours were
amongst the items rated as most appropriately treated with psychotropic medication prior
to the training. MacDonald & Tevan (1997) reported in their study that out of 70
prescriptions of drugs for people with dementia 74% were in response to behaviours
which could be categorised as aggressive, agitated or noisy and disruptive. Behaviours of
this type undoubtedly present serious management problems to carers, particularly in
setting which are understaffed. It seems likely that medication is the treatment chosen in
the absence of alternatives. Indeed, MacDonald & Tevan (1997) stated that nurses who
participated in their study expressed “feelings of inadequacy and frustration that they had
no alternatives in the management of challenging behaviours”. Evaluation of the present
training reflected an enthusiasm on the part of nurses to engage with suggested
alternatives to drug treatments.

The fact that the greatest response to training was shown in relation to highly disruptive
and challenging behaviours may be indicative of a need for further training focusing on
non-pharmacological interventions specifically related to these behaviours. Research
such as that reported by Ware et al, (1990) which investigated the particular circumstances in which aggressive behaviour occurred may be particularly relevant as a basis for such training. Further research is available which considers other specific behaviours such as wandering (Hope & Fairburn, 1990).

Three of the items which maintained consistent scores following participation in training were paranoid ideas, shouting at hallucinations and tearfulness and apathy. This is likely to be the result of these symptoms being accepted as reflecting underlying mental illnesses (psychoses and depression) which are generally responsive to psychotropic medication and which apparently require little further interpretation before treatment is implemented. Behaviours which scored low in perceived appropriateness for treatment with drugs both before and after training were; wandering, inappropriate toilet habits and food refusal. These behaviours may be regarded as less disruptive, more easily tolerated on the ward, and less amenable to the effects of medication than the more actively challenging behaviours.

4.5 Training and Job Satisfaction

In relation to job satisfaction the results of the present study supported the hypothesis that this would be a mediating factor in response to training.

The results showed firstly that job satisfaction is likely to be lower in nurses who are older and who have spent longer in dementia care. This finding is of particular interest in the light of feedback from the link nurses to the effect that staff perceived themselves as
too old and too entrenched in established practice to begin a process of change. Secondly, although there were no differences between the groups on demographic variables there was a significant difference in levels of job satisfaction between the experimental group and the control group. Furthermore, in the control group there was a significant difference between external and internal job satisfaction. This finding supports the view that job satisfaction is not a unitary concept and strongly suggests that external factors (i.e. factors relating not to the job of caring for people with dementia but to the environment in which this is done) were the largest contributors to lower overall job satisfaction within this group. This finding supports the conclusion of McGrath et al (1989) who found that administrative and organisational factors were the two main sources of low job satisfaction and stress for nurses. In particular McGrath et al noted that insufficient time to perform their duties to their satisfaction and the rationing of scarce resources were sources of high stress for nurses. In view of this it is perhaps not surprising that in the present study the group with the lowest external job satisfaction were non-participants in the training.

This finding has important implications when the link between job satisfaction and quality of care is considered. The fact that external job satisfaction was significantly lower than the satisfaction derived from caring for patients with dementia may provide an indication towards appropriate ways in which to address this issue. It is relevant to consider the points made by Robertson et al (1995) regarding the relationship between job satisfaction and quality of care.
In the present study it seems that the most useful explanation for both low job satisfaction and non-participation in training is that both are related to the same or similar environmental issues. Hallberg & Norberg (1993) suggested that aspects of job satisfaction could be improved by adopting a psychosocial approach to care and practices similar to those advocated by the present study. The theory behind this being that improved relationships and greater emotional involvement with patients raises job satisfaction. The results of the present study however suggest that before any benefit could be gained from this approach external issues should be addressed which would in turn improve response to training concerned with improved models of care and staff/patient relationships.

Supportive groups have been reported as successful in decreasing stress and increasing job satisfaction in nurses (Gray-Taft & Anderson, 1993) and there may have been benefits such as this inherent in the use of link nurse led tutorials in the present study.

Hallberg & Norberg, (1993) studied creativity and innovative climate, tedium and burnout among nurses during one year of systematic clinical supervision combined with the implementation of individualised care on an experimental ward for severely demented patients. Systematic clinical supervision was in the form of informal group discussion on the ward. Discussion focused on one patient as a time and any current difficulties were discussed in the light of the patients' background and history. The group were free to reflect on and interpret their own experiences with the patient. These supervision sessions occurred in paralleled with the implementation of individually planned and
documented nursing care. The methods of implementation were taught on several two day courses throughout the year and two further hours per week were available for planning its introduction into practice on the ward.

The intervention meant that nurses were required to reflect on their clinical practice, to see patients as individuals and to spend time together discussing the best possible solutions to problems with nursing care. The nurses had the opportunity to share each other’s feelings, views and interpretations of their patient’s care. Hallberg & Norberg suggested that this supported the nurses creativity and accounted for the significant improvement over the course of the year, as measured on the “Creative Climate Questionnaire”. The findings of this study highlight the potential benefits of a support system with focuses on the nurses work itself.

A further study by Hallberg also lends support to several elements included in the training package used in the present study and illustrates some unexpected benefits of encouraging person centred care based on a close emotional relationship between nurses and patients with dementia. It suggests that close relationships between professional carers and patients can be beneficial to the job satisfaction and mental health of carers.

Contrary to the popular view that because caring for people with dementia is emotionally demanding nurses should take time away from their patients and not become too closely emotionally involved this study suggests that close emotional involvement can increase job satisfaction for nurses and quality of care for patients.
The results of the present study support the view that job satisfaction is not a unitary concept and that it is the result of a complex interaction between many internal and external variables. Non-participants in the training reported low external job satisfaction which suggest that aspects of the work environment were an influence on both low job satisfaction and non-participation in the training. The research mentioned above has illustrated the potential of supportive groups and closer nurse/patient relationships to increase job satisfaction and both of these were elements of the training offered to staff in the present study. However it appears that the staff who could potentially have benefited most from this were unable to participate. The implications of this situation are that certain issues pertaining to the work environment as well as staff resistance to change should be addressed before training is implemented in future.

Smith et al (1995) suggested that training could be perceived as an important form of respect and recognition particularly for nursing assistants and that training in combination with attitudes of appreciation and caring from others has the potential to reduce staff stress by increasing their sense of competence, morale and self-worth.

4.6 Audit and Research

As part of Government policy on improving the quality of public services, audit is now a requirement within healthcare. However, it is often perceived as a bureaucratic chore amongst health professionals. Research, particularly evaluative research, is more familiar and better regarded (Paxton, 1995).
The audit cycle is the process of setting standards, comparing practice with the standards, initiating changes in line with the comparison and reviewing practice again. The power of audit to improve quality only emerges when the cycle is complete. For example, setting standards would not in itself constitute audit. Also, audit is essentially a local activity, the results of which are of most value at the specific time and place in question.

Research, on the other hand, is the process of seeking knowledge through scientific enquiry. Evaluative research, seeks knowledge of the value of particular practices (in the present study a cascade method for training nurses in the management of non-cognitive symptoms of dementia).

Paxton (1995) noted several positions which may be adopted regarding the boundary between audit and research. For example, audit may be regarded as a subset of the wider range of research activities because audit is one type of systematic enquiry. Alternatively, audit might be regarded as completely separate from research with activities such as literature searching and hypotheses testing, seen as inappropriate intrusions. Paxton concluded that the most useful perception of the relationship between audit and research is that they are distinct but related activities. The experience of the present study supports this argument and confirms some of the relationships between audit and research suggested by Black (1992).

Although Black (1992) pointed out that it is important to recognise the distinct roles of audit and research (to avoid either audit masquerading as research but without the necessary scientific rigour or research pretending to be audit but without any attempt to
improve quality) he suggested four useful relationships which might exist between audit and research, two of which are particularly relevant to the present study. Firstly, research may be a basis for audit. In the present study research into published literature defined good practice and contributed to the production of the SIGN Guideline which was then adopted as a standard against which to audit practice. Secondly, audit can be a basis for research. In the present study audit of case notes provided information about the requirement for change and the need for training in order to initiate it. The stated purpose of audit in the Health Service is to improve the quality of care. The present study was concerned with whether the training intervention aimed at changing practice (and ultimately improving quality of care) was effective. The aim of training was to provide nurses with the support and resources to work towards the standard of the SIGN Guideline. Simply setting a standard would not have initiated change of practice as no alternatives were provided. Evaluation of the training intervention itself involved research - to measure changes in attitudes towards medication for non-cognitive symptoms of dementia and audit - to determine whether any changes had occurred in quality of information recorded in case notes. Essentially, according to Gosnell’s (1984) model of evaluation stage II (measurable learning evaluation) was completed under the auspices of research whereas stage III was carried out under the auspices of audit. In summary the present study illustrates a mutually supportive cyclical combination of audit and research.
4.7 Conclusions

People caring for those with dementia have a difficult task in coping with a disorder which has a course of progressive deterioration and which is physically and mentally demanding. Appropriate training should help them identify the subtle changes in quality of life that may be possible. Mutual support and encouragement are vital and have been shown to be instrumental in increasing job satisfaction and quality of care provided.

Much of the literature reviewed in the Introduction section of the present study illustrates the benefits to patients and staff of adopting a psychosocial model for dementia care which validates the person with the illness, builds on their strengths and meets their needs. Movement towards this, in part requires a shift away from the “medical model” where the use of psychotropic drugs to treat non-cognitive symptoms is prevalent. In order to facilitate this change training must be available to provide care staff with alternative models of care. Further research is needed to examine the clinical outcomes in dementia care when social and psychological interventions are taught to carers. Further training interventions need to be implemented and evaluated to determine whether carers are able to implement these approaches and to determine if they work equally well in other settings (e.g. voluntary sector nursing homes).

Results from the present study show that peer led training as the first stage of a cascade model can be an effective way to increase knowledge and invoke attitude changes in nurses caring for people with dementia.
Examination of the demographic details provided showed that in terms of age, years in dementia care, sex ratio and distribution of nursing grades there were no significant differences between the participating wards. It is important to note, however, that no account has been taken of environmental difference on the wards or of differences in patient populations. For example prevalence of non-cognitive symptoms of dementia was likely to vary between the wards as was the number of patients requiring intensive physical care. Factors such as these may have influenced motivation to participate in training as well as time available to devote to sessions on the ward. Several wards were understaffed particularly in relation the trained nurses and this may have been another confounding factor in evaluation of the training.
5.0 APPENDICES

5.1 Training Needs
**Demographic Details**

Ward........................................

Age...........................................

Sex...........................................

Current grade.............................

Do you work: full time □

part time □

day shift □

night shift □

How long have you worked with patients with dementia? □ Less than 1 year

□ 1 year to 5 years

□ More than 5 years

Would you prefer to work with a different group of patients?

Please write the *initials of your mother's maiden name* in the space below. This is to enable questionnaires to be matched but still remain totally anonymous.


Thank you. Your participation is greatly appreciated!!
How much do you know about each of the following:
Please circle your answer

<table>
<thead>
<tr>
<th></th>
<th>More or less nothing</th>
<th>A little</th>
<th>Quite a lot</th>
<th>A lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive symptoms of dementia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-cognitive symptoms of dementia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lewy body dementia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The effectiveness of drugs used in the treatment of non-cognitive symptoms of dementia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side effects associated with drugs used in the treatment of non-cognitive symptoms of dementia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical illnesses which can result in behaviour similar to non-cognitive symptoms of dementia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation and monitoring of behaviour.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-drug methods of managing non-cognitive symptoms of dementia.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.2 Tutorials and Supplement
INTERVENTIONS IN THE MANAGEMENT OF
NON COGNITIVE FEATURES
OF DEMENTIA

TUTORIAL 1 - RECAP ON DEMENTIA

Relevant case examples/discussion points 1, 2, 3
What is Dementia?

Dementia is the word used to describe a collection of symptoms (a syndrome) which may be caused by a variety of disease processes.

This syndrome is usually progressive and chronic.

◊ Multiple brain functions are affected

  e.g. memory
       thinking
       orientation
       comprehension
       calculation
       language
       ability to learn
       judgement

◊ Consciousness is clear.

◊ Emotional control, social behaviour, motivation and personality may also be affected.

◊ The decline in mental ability is sufficient to cause impairment of functioning.
Dementia: Facts and Figures

- 50,000 people in Scotland are estimated to have Dementia.
- 650,000 people in the UK.
- 5% of the population over 65 yrs have Dementia.
- 10-20% over 80 yrs.
- 80% of people over 80 DO NOT have Dementia.
- Most GP's will have 12-20 people with Dementia on their list.
- 23% of people with Dementia live alone.
- 80% of people with Dementia (at whatever stage) live at home.
- 2/3 of people with Dementia are women.
Dementia - Clinical Features

**Cognitive features**

These are the features reflecting the loss of brain functions for example;

- memory
- language
- apraxia - inability to carry out motor skills
- agnosia - not recognising objects (by sight = visual agnosia)
- intellect, judgement and reasoning

**Non cognitive features**

These include the changes in personality, psychiatric symptoms and changes in behaviour which occur in dementia.

- **personality** changes - for example; disengagement, disinhibition
- **mood** changes - for example; depression, anxiety, elation
- delusions
- hallucinations
- altered **activity levels** - "restlessness", "wandering"
- altered **communication** - "noisiness", lack of speech
- altered **eating behaviour**
- aggressive behaviour
- altered **sexual behaviour**
- altered **sleep wake cycle**
CAUSES OF DEMENTIA

- Alzheimer's Disease 40%
- Lewy Body Dementia 20%
- Multi-infarct Dementia 20%
- Other causes* 20%

*Others include:
Alcohol related Dementia
Huntingtons Disease
Post traumatic Dementia
Post infective Dementia
Alzheimer's Disease

◊ Reported by Alzheimer in 1907.
◊ Commoner in Women.
◊ Onset usually after age 45.

Clinical Features

◊ Insidious onset - memory loss initially.
◊ Gradual decline.
◊ Global deterioration.

Pathology

◊ Generalised cell loss especially in cortex - causes brain size to shrink.
◊ Extra cellular degenerative plaques
◊ Intra cellular neurofibrillary tangles

} Identified at post mortem

◊ Widespread loss of neurotransmitters especially cholinergic.
Vascular Dementia

◊ Commoner in Men.

◊ Onset usually after age 45.

Clinical Features

◊ Often sudden onset with focal neurological signs.

◊ Usually past history of cardiovascular illness or risk factors.

e.g. hypertension
      atrial fibrillation
      TIA’s (Transient Ischaemic Attacks)
      high cholesterol
      smoking

◊ Stepwise deterioration.

◊ Decline in functioning is patchy e.g. marked loss of language with less impairment of memory.

◊ Insight often preserved.

◊ Personality better preserved.

◊ Fluctuations occur at night.

◊ Depression more common.
Dementia with Lewy Bodies

◊ More recently described

Clinical Features

◊ Onset with memory impairment or signs of Parkinson's (shuffling gait, rigidity and tremor).

◊ Hallucinations are much more common especially detailed visual hallucinations.

◊ Fluctuation in symptoms occurs early and is sustained and variable (no nocturnal pattern) (attention and alertness are affected).

◊ Important because extreme sensitivity to neuroleptic drugs can occur.

◊ Progression is variable.

◊ Falls are more common.

◊ Complex delusions are more common.

Pathology

◊ Pathology is of minute spherical deposits of protein in the cortex.
<table>
<thead>
<tr>
<th>DEMENTIA OF ALZHEIMER'S TYPE</th>
<th>MULTI-INFARCT DEMENTIA</th>
<th>DEMENTIA WITH LEWY BODIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affects women more often than men</td>
<td>Affects men more often than women, like all vascular diseases</td>
<td>Studies suggest more common in men than in women</td>
</tr>
<tr>
<td>Onset: late 70's or older</td>
<td>Onset tends to be earlier - early 70's</td>
<td>Onset: variable</td>
</tr>
<tr>
<td>Course: downhill with a variable slope</td>
<td>Course: stepwise, because of successive small strokes</td>
<td>Course: dramatic fluctuations</td>
</tr>
<tr>
<td><em>at this point it is often brought to attention by change in circumstances - eg a move, carer's illness etc</em></td>
<td><em>Stroke episodes - deterioration</em></td>
<td><em>Insight: variable</em></td>
</tr>
<tr>
<td><em>silent</em> period</td>
<td></td>
<td><em>Visual hallucinations may be very prominent other psychiatric symptoms also more common.</em></td>
</tr>
<tr>
<td>Disease apparent</td>
<td></td>
<td>Evidence of Parkinsonism very common, falls may be more frequent</td>
</tr>
<tr>
<td>Insight less often preserved; fluctuation less marked; personality and judgement noticeably affected</td>
<td>Slight recovery as oedema subsides, but previous level of function not regained</td>
<td><em>Initial periods of improvement of variable length</em></td>
</tr>
<tr>
<td>Focal neurological signs uncommon</td>
<td>Insight more often preserved - depression may follow, fluctuation more noticeable; personality and judgement relatively spared</td>
<td>Prognosis variable</td>
</tr>
<tr>
<td>May live for several years depending on age of onset (early onset usually carries a worse prognosis) and quality of care</td>
<td>Focal neurological signs common (eg fits, hemi-paresis, dysphasia)</td>
<td>Because of generalised vascular disease, death often occurs relatively soon from myocardial infarction or major stroke</td>
</tr>
</tbody>
</table>
INTERVENTIONS IN THE MANAGEMENT OF
NON COGNITIVE FEATURES
OF DEMENTIA

TUTORIAL 2 - NON COGNITIVE FEATURES

Relevant case examples/discussion points 4, 5, 6
Non Cognitive Features of Dementia

Dementia affects not only the brain functions such as memory and thinking but also:

◊ Personality
◊ Psychiatric Symptoms
◊ Behaviour

These are the "non cognitive features"

Personality Changes

Exaggeration of previous personality traits (disinhibition)
Altered personality traits

Psychiatric Symptoms

Changes in mood
Delusions
Hallucinations

Behaviour Changes

Altered activity levels - "restlessness" "wandering"
Altered communication - "noisiness" "lack of speech"
Altered eating behaviour
Aggressive behaviour
Altered sexual behaviour
Altered sleep/wake behaviour
Assessing Non Cognitive Features of Dementia is not Easy

The person experiencing the symptom may not be able to describe it.

The symptom or behaviour may not be consistent or predictable.

Many factors may be interacting to cause the appearance of a new behaviour or symptom:-

- The **personality**, former habits and presence or absence of insight of the person with dementia is the first thing to consider when trying to understand a new non-cognitive feature.

- **Dementia** itself - the area of brain most recently damaged might be important (for example; causing depression, delusions).

- **Drugs** - can be helpful or unhelpful for example;

  Anti-depressants may help the patient to take more interest and eat better.

  On the other hand Anticholinergics may cause more disorientation and the appearance of incontinence.

- **Caregivers** - the style of professional and non-professional caregiving can be important - for example; approaching the patient appropriately.

- **The environment** - the design of the environment can cause unnecessary disability for a person with dementia. The stimulation (or lack of it) may affect the person's behaviour.
Assessing Non Cognitive Features of Dementia Not Easy

To make matters more complicated:

Non cognitive features may interact with each other for example;

◊ The symptom of depression may lead to the behaviour of restlessness.
◊ Delusions may lead to aggressive behaviour in people with dementia.
◊ Communication problems may lead to resistance to nursing care.

BUT

Interventions can solve more than one problem.

For example;

◊ Treat the depression “cure” the restlessness.
◊ Treat the delusion - no more aggression.
◊ Manage the communication problem - easier nursing care.
What problems arise as a result of Non Cognitive Features of Dementia?

1. Distress for the person with dementia.

   It’s bad enough having dementia but having depression and dementia is worse.

2. Other health problems.

   Falls may be caused by “restlessness” - or by drugs used for restlessness.

   Deterioration in function may be caused by depression or psychosis.

3. Distress to family caregivers can lead to the breakdown of home based care. Many admissions to permanent care for people with Dementia are a result of non professional carers being unable to cope with behavioural problems.

4. Distress to professional caregivers and addition to the “burden” of care.

   Compare the nursing of patients with dementia to nursing someone who has dementia with aggression or anxiety or food refusal etc.

5. Increased mortality.

   Restlessness - fall - fracture - chest infection - death.
   Depression - food refusal - dehydration - infection - death.

R.I.P
Non Cognitive Features of Dementia

- are not new

Alois Alzheimer’s first case in 1907 was a 51 year old woman whose first symptom was suspiciousness towards her husband. This delusion persisted as did auditory hallucinations after memory impairment and disorientation became evident.

- are CORE symptoms of dementia.

i.e. just as important as the memory and thinking symptoms.

- are common in dementia.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depressive symptoms</td>
<td>30% of cases</td>
</tr>
<tr>
<td>Delusions</td>
<td>30%</td>
</tr>
<tr>
<td>Misidentification</td>
<td>12%</td>
</tr>
<tr>
<td>Visual hallucinations</td>
<td>12%</td>
</tr>
<tr>
<td>Auditory hallucinations</td>
<td>12%</td>
</tr>
<tr>
<td>&quot;Disruptive behaviour&quot;</td>
<td>50-75%</td>
</tr>
</tbody>
</table>
Depression in Dementia

Depressive symptoms are common in dementia. Often these are clinically significant and require intervention.

The presentation of depression in dementia can take many forms but is usually not expressed as it would be in someone who does not have dementia.

Depression may be communicated through altered behaviour

For example; reduced or increased eating
reduced or increased sleeping
irritability and aggression
sad statements
incontinence
social withdrawal

People with dementia who get depressed might be easy to "cheer up" briefly but the overall picture should be considered.

Always look for changes in behaviour and listen to their content of speech.

A high index of suspicion is useful and a trial of drug treatment is often appropriate.
Delusions and Hallucinations in Dementia

Common delusions are of theft, personal harm, infidelity, infestation.

These delusions may not be elaborate and complex as they would be in schizophrenia. The person with dementia might not be able to describe them in the same way. They are more likely to be picked up by listening to comments patients make and by observing behaviour.

Delusions often seem to be related to the patient trying to make sense of things given their impairment of memory. A common delusion early in dementia is of theft.

Delusions often lead to aggressive behaviour.
INTERVENTIONS IN THE MANAGEMENT OF NON COGNITIVE FEATURES OF DEMENTIA

TUTORIAL 3- PSYCHOLOGICAL APPROACHES

Relevant case examples/discussion points 7, 8, 9, 10, 11
Psychological Approaches to the Management of Non Cognitive Features of Dementia

Psychological interventions should always be considered in response to non-cognitive symptoms, with an individual “person centered” approach required in each case.

Many factors may be interacting to cause the appearance of a new behaviour or symptom.

The person (personality, habits, insight)
The dementia itself (stage of disease, parts of brain affected)
Physical illness
Drugs
Sensory impairment
Caregivers (their approach, coping)
When do Symptoms/Behaviour need Treatment?

Two essential questions must be answered

Is there a problem?
For whom?

Some Symptoms might:

Cause distress to the patient e.g. hallucinations, depression.
Impair self care.
Prevent social interactions.
Prevent participation in activities.
Present danger to the patient or others.

In all of the above, treatment will be required.
Understanding the Problem

A historic approach will always lead to better understanding.
It is useful to know what the person was like before the Dementia started.

Behaviour cannot be understood in isolation

therefore assessment should consider;

the individual person with his/her life history
likes/dislikes
strengths
culture etc.

The current physical and mental health problems.

The environment and people around the person with dementia.
Once sensory impairment, medical problems and medication concerns have been considered psychological approaches are relevant to the management of non-cognitive symptoms.

Here are 3 important steps:

1. The behaviour must be identified
2. The behaviour must be understood
3. The behaviour can be managed in a helpful way.

**Identifying behaviour**

Problem behaviour must be identified and recorded accurately and consistently. It is very important to describe behaviour precisely.

Accurate recording of behaviour is the first stage of the A-B-C approach to its understanding.

**Understanding behaviour**

Many people who have dementia with non-cognitive symptoms have a particular difficulty communicating with other people.

Communication is imparting or exchanging information, ideas or feelings from one person to another.

There are many different ways of communicating. Communication is both verbal and non-verbal.
Some people with dementia have difficulty using language to express their thoughts and feelings, or have impaired concentration and reasoning abilities.

Establishing meaningful communication is therefore the responsibility of carers.

**Behaviour is a form of communication**

The behaviour of a person with dementia may be a response to their feelings of frustration and difficulty in communicating.

**Managing behaviour in a helpful way**

Once what the person is trying to communicate by their behaviour is understood it can be managed appropriately. This might involve altering the consequences of the behaviour for the person, changing something in the environment, or finding ways to avoid the events which lead to the behaviour.
The A-B-C of Behaviour

It is easy to jump to conclusions and to make quick assumptions. However, in order to understand behaviour and find helpful ways to manage it, a useful approach is to examine behaviour in the following way.

- **Antecedent or Activating Events**

  When and where did the behaviour start? What happened immediately before? Could anything have led up to it or provoked it? Who was present at the time? Is there any information about illness or circumstances in the past that might have a bearing on it?

- **Behaviour**

  It is very important to define behaviour in specific rather than general terms. For example, instead of "agitation" it is more useful to record "repeated falling out" or "pacing up and down the hall while wringing hands".

  What form did the behaviour take? What did the person's attitude appear to be? How long did it last? Was there anything peculiar or unusual about it? Who was involved? What was happening in the surroundings while this was going on?

- **Consequences**

  What happened as the behaviour stopped? What response was there from others? How was the person afterwards?

By using this approach and by asking the right questions the reasons for behaviour can be clarified, understanding can be improved and ways to manage the situation and any later occurrences can be planned properly.

**Activating events, a precise description of the behaviour and its consequences should be recorded so that accurate information is passed between staff members.**

An example of a chart for recording A-B-C is included in the folder.
Other non-drug Interventions

The following psychological approaches may enhance general quality of life for some patients with dementia.

1. **Reality orientation (RO)**

   This approach aims to create an environment that allows patients with memory problems to function as well as possible. RO involves providing accurate information aimed at orientating the person to their surroundings. A variety of methods including communication, reinforcement of appropriate behaviour and changes to the environment is used. While research evidence does suggest that RO is associated with improved verbal orientation, there is little evidence regarding changes in behaviour.

2. **Occupational Activities**

   These are intended to provide positive stimulation and hence to reduce some of the possible causes of difficult behaviour, e.g. boredom, reduced participation in daily/domestic activities, loss of previous interests.

   There have been reports of music therapy as an intervention for agitation and this is seen as one of the most “successful” activities being widely used in Dementia care.

   Activities programmes designed specifically for the needs of people with Dementia have been reported as resulting in a reduction of behavioural disturbances.

3. **Validation Therapy**

   The aim of this approach is to empathically reflect and validate the person’s view of reality. Behaviour is thought to reflect a person’s life experience and unresolved issues from the past.
Reminiscence

There are several types of reminiscence work ranging from straightforward recall of past events to more formal life review work.
INTERVENTIONS IN THE MANAGEMENT OF
NON COGNITIVE FEATURES
OF DEMENTIA

TUTORIAL 4 - DRUG INTERVENTION
Drug treatments can be very effective in the management of non cognitive features of dementia in individual patients.

Research evidence to support this is very limited however and varies from drug to drug and problem to problem.

For all prescribing in older people the aim should be to use the smallest possible number of drugs

◊ in the smallest possible effective dose

◊ for the smallest time necessary for effective treatment.
Neuroleptic Drugs

Should always be considered for serious problems e.g. delusions and hallucinations or serious distress or danger from behaviour disturbance.

Always consider non drug treatment along with drug options before starting treatment.

Dementia with Lewy bodies must be excluded where possible.

General Principles

"Start low?"
"Go slow?"
"Is it working?"
"At what cost?" (side effects)
"How long is it needed?"

Anticholinergic medication should not routinely be given.
If extra pyramidal side effects* develops try a dose reduction.

Akathisia - subjective feeling of restlessness difficulty sitting still
Tremor
Cogwheel rigidity
Shuffling gait
Drooling
Tardive dyskinesia - develops more commonly in older patients and may be irreversible.

Different drugs have different side effects

e.g. Thioridazine causes less EPSE but has a high incidence of anticholinergic effects such as increased cognitive impairment, constipation and urinary retention as well as hypotension.
Haloperidol has a high incidence of EPSE but less anticholinergic effect and less hypotension.

Atypical antipsychotic drugs such as Sulpiride, Risperidone, Olanzapine generally cause less in the way of side effects.
Anti-depressant Drugs

Depressive symptoms are common in dementia.

Often a non drug intervention is indicated.

If symptoms persist and are significant a trial of drug treatment is indicated.

Different anti-depressants have different side effect profiles.

The same general principles apply.

“Start low?”
“Go slow?”
“Is it working?”
“At what cost?”
“How long is it needed?”

Often anti-depressants are continued long term if depression has been severe.
Use of other drugs

The use of Lithium, Carbamazepine, B-Blockers, Anxiolytics, Hypnotics, Busprone and Anti-depressants has been described in relation to many different non cognitive features of dementia.

On an individual basis a trial of treatment might be indicated.

The same general principles would apply

"Start low?"
"Go slow?"
"Is it working?"
"At what cost?"
"How long is it needed?"

The use of Chlormethiazole is often suggested in people with dementia with Lewy bodies where behaviour disturbance or distress is severe.
INTERVENTIONS IN THE MANAGEMENT OF NON COGNITIVE FEATURES OF DEMENTIA

CASE EXAMPLES AND DISCUSSION POINTS
CASE 1

Mrs S. who is sixty years old, has recently been admitted to the ward.

About two years ago her husband noticed that she was becoming forgetful. At first this was in relation to everyday activities such as remembering items on her shopping list.

Gradually, however, Mrs S. began to forget the names of members of her family. She also became increasingly irritable and sometimes would not understand what was said to her. She became unable to maintain a conversation. Sometimes her speech made no sense at all to those listening. Mrs S. stopped going out and spent her days following her husband around as he carried out the domestic tasks. Mrs S. was often up during the night and on one occasion her husband had found her walking in the garden naked.

From this history what is the most likely diagnosis for Mrs S.? 

What are the cognitive and the non-cognitive symptom described above?

Discuss some alternative presentations of dementia.
CASE 2

Mr T. has dementia associated with Parkinson's disease. He currently lives at home and is cared for by his wife. Mr T. is mobile with two walking sticks, he can dress himself and is able to use the toilet without assistance. He requires help to bath himself. Mr T. can maintain conversation but does not read or watch television. He spends most of his day dozing on the sofa.

Recently Mr T. has been getting up at night and moving around the house, disturbing his wife. She has found him wearing her clothes and on one occasion she discovered him defecating on the carpet.

Mrs T. feels that she is unable to cope with caring for her husband. She is taking antidepressant medication. She would like Mr T. to be admitted to permanent care. Mr T. wants to remain at home.

What would be the most appropriate way to manage this situation?

N.B. The couple have had previous problems within their marriage.
CASE 3

Mr & Mrs Smith attend the GP. Mr Smith is aged 68 and his wife has noticed a deterioration in his memory. She has been angry with him because sometimes he seems entirely normal again and she feels he might be "putting it on". The normal times can last for a few hours but sometimes for several days. He has been talking to her about a large brown dog with green eyes and a bushy tail in their bedroom which he plays with. The couple do not have a dog, but he is quite insistent and can even describe its collar in detail.

Mrs Smith’s impatience with her husband has been made worse by his difficulty in paying attention to her and to TV programmes they watch together.

She has become more concerned having noticed that his walking has changed and he is not "lifting his feet". He has had 2 minor falls with no injury.

What is the likely diagnosis?

What are the main clues?

- Fluctuation
- Visual hallucinations
CASE 3 (Cont’d)

*Shuffling gait*

*Impaired attention*

*Falls*

What should the GP do about the hallucinations?
CASE 4

Mary Jones was in the bathroom. Her key nurse said, "Here's the soap. The water is nice and warm, so wash your hands and face and I'll be back in a minute". When the nurse returned, Mary was standing there splashing the water and screaming in frustration.

What might be happening here?

Mary has a dementing condition which has resulted in an apraxia. She has an inability to perform a task though there is nothing wrong with her muscles, joints, limbs or even the ability to perform actions. However, if the person has to think about what must be done, co-ordinating the motor actions becomes an impossibility.

Is apraxia a cognitive or a non-cognitive symptom of dementia?

How could you help Mary?
CASE 5

You return from holiday to read in the cardex that one of your key patients has become increasingly "agitated" over the past four days.

What does the word "agitated" actually tell you about the patient's behaviour?

Not very much!

Agitated could be:

- pacing about the ward
- shouting out
- trying to leave the ward
- repetitive body movements

What might be the reasons for this type of behaviour?

It could be the result of:

- side effects of medication
- boredom
- physical illness resulting in pain or discomfort
- psychotic illness
- depression
CASE 6

Mrs Green is 73, lives alone and has early Alzheimer’s disease. Her social worker has been working with her and her family to try to encourage her to accept some home help support which she consistently refuses.

The social worker and the family have become concerned that she has taken to sleeping in a chair rather than her bed. In addition she is frequently talking about a woman who comes into her flat at night and takes things. Mrs Green hopes to catch her out by staying in the sitting room which is nearer to the front door.

In the presence of her daughter the social worker attempts to find out more. Mrs Green cannot explain how the woman gets in. There is never any damage to the door or windows. She never sees or hears her. She often stays awake late hoping to catch her. Mrs Green goes on to say that maybe she has a key. Her daughter reminds her that she had the locks changed two weeks ago. Mrs Green feels that the woman may have also obtained her new key but doesn't know how. She remains convinced that the woman does come in.
How could we gain a similar understanding of the underlying thoughts and beliefs which may affect those patients with dementia who cannot articulate them as clearly as Mrs Green?

Are there examples of patients in the ward who may behave in a certain way because of abnormal beliefs? For example, people intending harm or beliefs relating to theft.
CASE 7

You are living in "a place", a person you don't remember (who looks after you every day) comes along and takes you to a different place. There is a big white thing with stuff in it. The person starts to take off your clothes then tries to make you get into to the big white thing.

**What would you do ?**

If you were a member of staff what would an A-B-C approach be likely to reveal about this behaviour?

---

This patient has a **visual agnosia**.

---

**What could you do to help?**

Using some other senses might help - a familiar smelling bath oil, the noise of the nurse's hand in the water, a smile?
CASE 8

Mrs Mackie shouts "help" every ten minutes or so. It gets the rest of the residents and the staff down. It does not seem to matter what the staff do to help her, she shouts again a few minutes later.

What would you suggest be done?

Again an A-B-C approach.

Mrs Mackie’s behaviour should be recorded in a specific and descriptive way, ideally over a few days to find out if there is a pattern to her behaviour. Once this has been done your can begin to interpret the links between.

Antecedents (activating events) - When does she shout? What seems to initiate it?

Behaviour - Is shouting the only behaviour? How else does she behave?

Consequences - What happens when she shouts? How do staff and others respond.
Using this approach might show that Mrs Mackie has learned that the only way she gets any attention is to shout. Staff might decide to give her some attention every ten minutes or involve her in some interesting activity so that she does not have to shout.

**What might be some other reasons for Mrs Mackie’s shouting?**

What if -

- She is in pain
  - Her medication needs to be reviewed
  - Her brain is damaged
  - She has an anxiety state as well as dementia
CASE 9

Hospital - Mr Jones is reported to be "aggressive". On one occasion he was having a nap, when nurse Cameron came to attend to him. She approached from behind and picked up his left arm to change a dressing. He awoke with a start and lashed out at her so fiercely that she staggered back.

Is this behaviour a problem? Who for? What should be done?

Think of as many different reasons for aggressive behaviour as you can.

How might aggression resulting from each of the following be managed best?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misunderstanding personal care.</td>
<td>This may seem like an invasion of privacy to some people, especially if by a person of the opposite sex.</td>
</tr>
<tr>
<td>Having some insight into their condition and trying to hide it from others and cope with it by themselves - feeling both frightened and frustrated.</td>
<td></td>
</tr>
<tr>
<td>Being unable to do a particular task and getting frustrated by the effort.</td>
<td></td>
</tr>
</tbody>
</table>
Finding it difficult to come to terms with social or physical situations and feeling threatened by them.

*Feeling that carers are being unsympathetic or confusing.

*Specific things such as too little stimulation, either by way of conversation or activity.

*Being too hot or too cold or the room being stuffy and airless.

*Being over tired (or perhaps overstimulated).

*Feeling that remaining skills are being overlooked, and that they are being made to be more dependent and even more powerless.

*Restraining. For example, locks on doors that they can't open.

*Inappropriate medication.
*Meeting or being visited by particular people.

*Beliefs that people are stealing (delusions).
CASE 10
Mr Smith walks everywhere in the ward. From getting up in the morning he follows staff into the office, goes into the kitchen, sits in the nurses station, refuses to spend any time in the patient's lounge and frequently paces about.

Staff describe Mr Smith as "wandering".

What would be the most appropriate first step in a management approach for Mr Smith's behaviour?

The behaviour could more usefully be described by considering what Mr Smith's "wandering" actually is.

It could be:

- aimless walking
- attempting to leave
- checking
- trailing i.e. following staff or other patients
- pottering - ineffective attempts at tasks
What would the next step be in investigating this behaviour?

You might consider whether this behaviour is actually a problem, and if so, for whom.

What factors related to Mr Smith's behaviour would an A-B-C approach consider?

Antecedents - what happens before the behaviour starts? What is going on in the surroundings before the behaviour starts? Who is present?

Behaviour - what exactly the behaviour is. How severe and how frequent it is.

Consequences - what does Mr Smith gain from his behaviour? What is happening if his behaviour stops?
CASE 10 (Cont'd)

Consider what might underlie the behaviour?

- anxiety when left alone
- unable to find the dining room/toilet
- checking that he can find the dining room/toilet
- trying to do his job
- providing his own stimulation
- motor restlessness (akathisia) induced by neuroleptic treatment
- motor restlessness induced by pain

What would be the most appropriate way to manage behaviour resulting from each of the above underlying causes?
CASE 11
Mr P. is a patient on the ward. He has a moderate degree of dementia. He had previously been interested in music, lived alone and had been an avid reader. Socially affable, he would willingly join in group activities. Mobility and eating skills were generally good but he was quite disorientated, often becoming completely lost even in the ward. He joined in domestic activities but required some verbal prompting for dressing and washing.

The one problem which concerned the staff was his temper and they reported that he "was prone to aggression". This was usually verbal but at least once a day a blow was struck. Staff carefully recorded the events leading up to these incidents; they seemed to be of two types. The first was in relation to personal care, at a point when a member of staff had told him to do something, upon which he would become angry and impatient. The second was where a member of staff had corrected him, and a confrontation had resulted. For example, if he announced had was going to work or looking for his wife and was reminded that he no longer worked or that his wife had died, he would argue, become angry and lash out. Afterwards he would be a little apologetic and then act as if the incident had never happened. There was no real evidence of fluctuations in this behaviour.
CASE 11 (Cont'd)

Having established the information above by using an A-B-C chart, what might be an appropriate care plan for Mr P.?

Develop recreational interests. - Explore previous interests, obtain some of the books or music he likes, draw him into daily recreational activity.

Develop orientation - Use colour, memory aids, guide him round the ward during each day.

Develop independence in washing and dressing.

Basic approach - Ask and do not tell him what to do, avoid confrontation, validate his feelings, e.g. wanting to work, missing his wife, do not correct him, respond factually to his questions.
CASE 12

Mr Brown is an eighty year old man with a six year history of progressive cognitive impairment. On the ward he is generally quite sociable and co-operative.

Recently, however, Mr Brown has stopped eating and has had to be encouraged even to start his meals. He has, on occasion spent more than an hour at a time pacing backwards and forwards on the same route through the ward. At other times he has been tearful and has avoided company whenever possible.

What possibilities should be considered as reasons for this behaviour?

What would be an appropriate way of helping Mr Brown?

He may be depressed.

An appropriate approach would be to carefully describe and monitor Mr Brown’s behaviour using the A-B-C method.
Trial of an anti-depressant may be appropriate. What principles are important to bear in mind as Mr Brown starts on medication?

- Start low
- Go slow
- Monitor carefully - for side effects
- Review... review... review...
5.3 Further Reading
Supplementary Reading Material


5.4 Supplementary Material
Supplementary Training Material

   This book contains chapters on history, epidemiology, aetiology and the biological basis of
   the disease. Detailed accounts of the clinical picture, the diagnostic process and
   management options including pharmacological and non drug therapies.

   This publication provides general information about dementia and associated challenging
   behaviour. It encourages readers to consider practice issues in the care of people with
   dementia particularly responses to behavioural problems.

   This guide is written for professional carers of people with dementia and illustrates ways
   to improve interpersonal communication. Designed as a "work book" with the intention
   of encouraging readers to relate information provided to their personal experience.

   Describes the coexistence of dementia and depression and the importance of distinguishing
   this from depressive dementia.

5. Quiz Quest - Hearing the Voices of People with Dementia. (1997).
   A card game devised for trained and untrained participants to initiate thought about issues
   involved in communication with people with dementia.

   (1996).
These four booklets each address one specific behaviour commonly associated with dementia. Included in the series are; screaming, wandering, incontinence and aggression.

The series contains practical help and advice on these potentially problematic behaviours. The series emphasises the importance of recording behaviour and attempting to understand its aetiology before deciding on a treatment strategy.
5.5 Non-cognitive Questionnaire
Non-cognitive Symptoms of Dementia

There are many non-cognitive symptoms of dementia. Typical manifestations include:

- Restlessness or overactivity
- Mood disturbances including depression
- Anxiety
- Irritability
- Psychotic experiences (e.g. delusions and hallucinations)
- Disordered communication (especially repetitive noisiness)
- Disturbed behaviour (e.g. aggression and inappropriate sexual behaviour)

Case Example

Mrs A. is an 82 year old woman, with an established diagnosis of Alzheimer type dementia but no previous psychiatric history. She had, until three months ago, been settled on the hospital ward but she has gradually developed behavioural disturbance. A medical examination has revealed no evidence of physical illness.

If Mrs A. were a patient in your ward and she developed any of the following behaviours, how appropriate do you think treatment with psychotropic drugs (i.e. any of the drugs commonly used to treat psychiatric problems) would be?

Please mark one box for each behaviour where:

1 = Definitely inappropriate
2 = May be inappropriate
3 = May be appropriate
4 = Definitely appropriate

a) Wandering

1 2 3 4

b) Agitation (purposeless overactivity)

1 2 3 4

c) Physical aggression (e.g. hitting other people)

1 2 3 4
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>d)</strong> Food refusal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>e)</strong> Sleep problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. insomnia)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>f)</strong> Resisting physical care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>g)</strong> Non-violent inappropriate sexual behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>h)</strong> Paranoid thinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g. allegations of theft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>i)</strong> Shouting out at hallucinations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>j)</strong> Inappropriate defecation/urination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>k)</strong> Tearfulness and apathy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>l)</strong> Persistent screaming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.6 Job Satisfaction Questionnaire
Job Satisfaction Questionnaire

Ward............................. Grade..................... Age.....................

Length of time in dementia care
a) less than 1 year □
b) 1 year to 5 years □
c) more than 5 years □

Please use the rating scales below to indicate how satisfied you are currently with the following aspects of your job.

1. The physical working conditions?
Extremely dissatisfied Very dissatisfied Dissatisfied Satisfied Very satisfied Extremely satisfied
□ □ □ □ □ □

2. The amount of freedom you have to work in the way you want?
Extremely dissatisfied Very dissatisfied Dissatisfied Satisfied Very satisfied Extremely satisfied
□ □ □ □ □ □

3. Your fellow workers?
Extremely dissatisfied Very dissatisfied Dissatisfied Satisfied Very satisfied Extremely satisfied
□ □ □ □ □ □

4. The recognition you get for your work?
Extremely dissatisfied Very dissatisfied Dissatisfied Satisfied Very satisfied Extremely satisfied
□ □ □ □ □ □
5. Your immediate superior?

<table>
<thead>
<tr>
<th>Extremely dissatisfied</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
<th>Extremely satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. The amount of responsibility you are given?

<table>
<thead>
<tr>
<th>Extremely dissatisfied</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
<th>Extremely satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Your rate of pay?

<table>
<thead>
<tr>
<th>Extremely dissatisfied</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
<th>Extremely satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. The opportunities you have to use your ability?

<table>
<thead>
<tr>
<th>Extremely dissatisfied</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
<th>Extremely satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Relations between managers and nurses in the hospital?

<table>
<thead>
<tr>
<th>Extremely dissatisfied</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
<th>Extremely satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Your chances of promotion?

<table>
<thead>
<tr>
<th>Extremely dissatisfied</th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
<th>Extremely satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. The way the ward is managed?

12. Attention paid to suggestions you make?

13. The hours of work.

14. The amount of variety in your job?

15. Your job security?

16. Taking everything into consideration how do you feel about your job as a whole?
5.7 Training Evaluation
Training Evaluation Questionnaire

The purpose of this questionnaire is to gather feedback from nurses regarding the training materials and the method of using a link nurse to lead discussions during shifts on the wards.

Please answer the following questions. It would be most helpful if you could add any further comments that you may have about this training, whether these are negative or positive, at the end of the questionnaire.

1. Which training materials did you use?

Tutorials (in Folder) Cases/discussion ideas booklet Further reading (in folder) Other

2. How interesting was the material?

Extremely interesting Quite interesting Interesting Quite uninteresting Extremely uninteresting

3. How relevant was the material to your work?

Extremely relevant Quite relevant Relevant Quite irrelevant Extremely irrelevant

4. How much of the material was new for you?

Almost none Very little Some A fair amount A great deal
5. In general, do you think that the training has been useful?

Yes  No  Don’t know

6. Has the training led you to consider changing any aspects of the way you work?

Yes  No  Don’t know

7. Do you think the arrangement of having training sessions on the ward was effective?

Yes  No  Don’t know

8. Do you think that the arrangement of having a “link nurse” to lead discussions was effective?

Yes  No  Don’t know

9. Would you participate in any similar training which may be available in future?

Yes  No  Don’t know

Please make any other comments or suggestions that you have concerning this training?

Thank you. Your participation is greatly appreciated.
Alyson Jack (Trainee Clinical Psychologist).
REFERENCES


