

**The Effect of Challenging Behaviour, and Staff
Support, on the Psychological Well-being of
Staff working with Older Adults with Dementia.**

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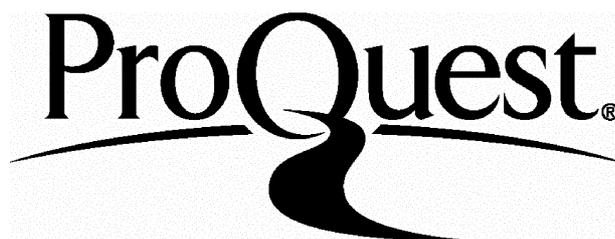
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ABSTRACT

This study aimed to investigate the range and prevalence of challenging behaviour found in residents with dementia, and to compare them with physically frail residents living in nursing homes. The study also aimed to investigate the relationship between levels of challenging behaviour in residents, the degree of staff support, and the psychological well-being of staff. Seven residential homes took part in the study, four mental health settings and three nursing homes, and 96 staff completed questionnaires.

Twenty-eight separate behaviours were measured, and many occurred more frequently in the dementia group than the control group. The most common behaviours recorded in all settings included lack of motivation and lack of occupation. Staff ratings of how frequently a behaviour occurred, and how difficult it was to manage, were highly correlated. Behaviours which had an aggressive component, or were loud and disruptive tended to be cited as most personally distressing by staff, whereas least distressing behaviours usually had a minimal impact upon the surrounding environment. The challenging behaviour of residents elicited a variety of emotions in staff, most commonly feeling upset or angry.

Staff in the mental health settings had a higher level of perceived staff support than those working in the nursing home settings. Psychological well-being in staff was found to be highly correlated to the degree of staff support perceived by staff. However psychological well-being was not related to levels of resident challenging behaviour.

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CHAPTER 1. INTRODUCTION

OVERVIEW OF THE TOPIC AND CHAPTER 1

In recent years there has been increasing interest in the psychological well-being of staff working with physically and mentally ill patients. This introduction will review the literature on factors which have been found to contribute to stress in staff working in residential settings with older adults. It will begin by looking at behaviours commonly found in these settings, and then explore studies looking at the effect these can have on staff. Many of these studies have focused in particular on behavioural symptoms associated with residents with dementia.

Research findings from studies investigating the role of organisational factors in predicting levels of staff stress in residential settings are then summarised. Several studies have also looked at the effect of both resident related and organisational factors together, and these are outlined. Finally some of the methodological issues in this previous research are highlighted, before going on to outline the aims and objectives of the present study.

GENERAL BACKGROUND

The proportion of older people within the UK population has risen greatly over the past century. In 1900, around 5% of people in Britain were 65 or over, this number had risen to 18% in 1990, and the trend is continuing. This rise is particularly noticeable in what has

been termed the "elderly elderly" population, ie those over 75 years old (Miller & Morris, 1993). There are therefore increasing numbers of older adults needing long-term care provision.

Another consequence of this rise has been the increase in prevalence of illnesses associated with increasing age, in particular dementia. The dementias are a group of illnesses which involve widespread progressive brain pathology, resulting in a general decline in intellectual functioning, and which result eventually in the loss of ability to live independently in the community. The syndrome is prevalent in around 5% of those over the age of 65, and in 15% of those over 75 (Kay & Bergmann, 1980).

The majority of dementia sufferers (five out of six) live in the community (Miller & Morris, 1993), and are cared for by family and friends. Numerous research studies have investigated psychological well-being of carers of dementia sufferers, and found high rates of depression (eg Livingstone, Manela & Katona, 1996) and anxiety (eg Russo et al, 1995). Caregiver factors associated with caregiver burden and distress include female gender, family and formal support, physical health, and coping style (Harvey et al, 1998). Patient-related factors include quality of previous relationship between caregiver and recipient, degree of cognitive impairment, functional disability, and non-cognitive symptoms such as behaviour disturbance (Harvey et al, 1998).

Harvey et al (1998) conclude from their review of the literature that "the non-cognitive symptoms emerge as the principal patient predictor of caregiver burden" (p 33). Research has also shown that many carers find gratification in caring, particularly those with good

social support networks (eg Haley 1997). Many dementia sufferers are however cared for in a variety of residential settings (Baillon, Scothern, Neville & Boyle, 1996). These can be run by the National Health Service, social services or private agencies, and vary in the level of facilities and staff available.

The psychological well-being of staff in health or social services occupations has often been the focus of research - for example the term "burnout" was coined to reflect the emotional exhaustion sometimes experienced by those working in the "caring" professions (Harris & Thomson, 1993). Burnout is described as a condition where professionals "lose all concern, all emotional feeling for the people they work with, and come to treat them in a detached or even dehumanized way" (Maslach, 1976).

Clearly, stress experienced by staff working with various client groups is likely to have a significant impact on the quality of care provided to them. MacPherson, Eastley, Richards & Mian (1994) comment that there has been a great deal of research into the correlates of stress among carers of dementia sufferers living at home. They argue "it follows that professionals caring for the elderly in institutions where a high proportion have dementia may also suffer from stress.....However, there is a paucity of research in this area" (p381).

Staff working with clients with dementia are clearly vulnerable to this kind of emotional stress. Much of the time they may be facing behaviours which are difficult to understand and to deal with, and in many cases they are also working within a variety of organisational constraints over which they may have little control. Many referrals received by mental health professionals ask for help in dealing with the behaviours of residents living within

these mental health settings. Although responses to the "problem" behaviours of residents may vary (for example medication may be given in order to suppress difficult behaviour), any intervention is unlikely to result in a long-term change in behaviour unless consideration is given to the staff working within the institution.

Baillon et al (1996) point to the importance of incorporating the knowledge gained by research on the psychological well-being of staff into service organisation. Poor psychological health in care-workers would probably mean worse care provided for residents. As well as practical concerns, for example demoralisation resulting in high staff turnover, there are likely to be more subtle effects, for example unhappy staff being less willing to interact with residents.

One approach therefore is to target intervention at staff, for example by providing training, or opportunities for staff to express emotional distress in relation to the work they are doing. To be able to do this effectively requires knowledge about what staff find particularly difficult in caring for residents, and what they find particularly stressful, as well as information on whether there are any organisational variables which can facilitate/block the process of caring for residents.

RESIDENT BEHAVIOUR

Ward, Murphy, Procter & Weinman (1992) highlight the fact that many patients come to the attention of psychiatric services as a result of disturbed behaviour. Such behaviour may be due to a variety of causes, for example to personal and environmental characteristics as

well as organic factors, and is likely to arise in all residential settings, not just in mental health settings which may be better equipped to deal with it. There have therefore been a variety of studies investigating the type and prevalence of behaviours occurring.

Patients already in the psychiatric care system are commonly found to exhibit behaviours which are considered problematic by the nursing/care staff. Everitt, Fields, Soumerai & Avorn (1991) conducted a survey of 12 nursing homes in the United States, where nurses were asked to record the frequency and severity of seven such behaviours for residents (average age 82). Agitation (42% of the 346 residents assessed) was the most commonly recorded behaviour, followed by being withdrawn (33%), and noisy (27%).

Other behaviours included being verbally abusive (23%), wandering (22%), and bizarre behaviour (18%). The least prevalent behaviour was physical abuse, which occurred in 11% of residents. The authors comment that the causes of such behaviour are many and may include medication and the nursing home environment, as well as the psychiatric condition of the resident, and other factors such as pain.

Patel & Hope (1992) report on findings obtained from the development of a rating scale for measuring aggressive behaviour in the elderly (the RAGE, Patel & Hope 1992), which was designed to be filled out by ward staff on in-patient psychiatric populations. 90 patients were rated, of whom 71% were diagnosed with dementia, 13% with chronic schizophrenia, and the remaining 16% had a variety of diagnoses including learning disability and affective disorder. Their age ranged from 52-95 years, with an average of 81.

Raters were asked to score residents on a 4-point Likert scale of increasing severity for each of the seventeen aggressive behaviours in the scale. The most common behaviour was found to be "resisted help/uncooperative", and least frequent was sexually offensive behaviour. Verbally aggressive behaviour was found to be more common than physically aggressive behaviour, and the dementia group were found to have a significantly higher level of behaviours (mean RAGE score 6.1) compared with patients without dementia (mean score 4.8).

In addition, aggressive behaviours were found to be mostly directed towards the staff working on the wards. The authors suggest this may be because such staff have a lot of contact with patients, for example helping with daily living tasks. They also raise the possibility that patients may be as likely to show aggression to other patients, but that staff are less likely to know about these episodes or to report them.

The scale used therefore was developed specifically for use with hospital in-patient psychiatric populations, and as such may not transfer to nursing homes particularly well. In addition it focuses specifically on aggressive behaviours, although it could be argued that items on the scale are not all strictly aggressive behaviours, for example "been angry with self", and some require a judgement of motivation, such as "deliberately passing urine outside the commode". The in-patient psychiatric population used in the study may also be expected to have a greater incidence of aggressive behaviours than older adults living in community settings for example, and thus the generalisability of the findings is limited.

Aggressive behaviour in patients in a psychiatric state hospital was investigated by Colenda & Hamer (1991). Patients were 65 or over with a primary diagnosis of either mental illness or dementia. Information on aggressive behaviour was collected initially with an instrument listing five kinds of aggressive event. The type of aggressive behaviour occurring was recorded on this tool by direct care staff, and two clinical nurse specialists subsequently completed detailed case reports of the event, based on chart review and interviews with staff.

They found that during the first period of their survey, the rates of aggressive behaviour were almost twice as high for patients with dementia, than in patients with alternative psychiatric diagnoses such as psychosis. The majority of aggressive events (65.5%) were accounted for by a small group of 15 patients. The method of recording within the study was however dependent upon staff observing individual incidents. In addition data was then collected by clinical nurse specialists conducting interviews with staff, and thus may have been susceptible to subjective judgement of the behaviours.

Colenda & Hamer (1991) also found staff-patient exchanges were a major trigger of aggressive behaviour, and of physical aggression in particular. This finding is backed up by Meyer, Schalock & Genaidy (1991), who found aggressive episodes among patients aged 60 and over were most often triggered by being asked to do something, and were more often directed at staff than at other patients. These findings clearly have implications for staff working with aggressive patients.

Nasman, Bucht, Eriksson & Sandman (1993) carried out a cross-sectional study with patients in a psychogeriatric unit, a somatic long-stay unit, eight nursing homes and 15 homes for the aged. The measure used was Sandman-Adolfsson's Multi-Dimensional Assessment Scale for the Elderly (MDDAS, cited in Nasman et al), which measures behavioural symptoms together with various other factors such as motor functioning and speech.

65% of patients were reported as having behavioural symptoms. The most prevalent behaviours (ie occurring daily) included "constantly seeks attention of the staff" (20%), and "wanders back and forth alone or with other patients" (13%). "Hits patients and staff" occurred infrequently (2.1%), as did "undresses in the day-room" (0.6%). Demented patients were again found to score significantly higher than non-demented patients, with a mean score of 8.1 on the behaviour scale of the MDDAS as opposed to 2.59 for non-demented patients.

Bowie & Mountain (1993) used a direct observation method to record the behaviour of dementia patients during the day on seven hospital wards. Seven categories of behaviour were observed, including motor activity (18.7% of the time), antisocial behaviours (0.2% of the time), inappropriate behaviours (11.3% of the time) and neutral behaviours where the patient was classified as being detached from the environment eg sitting doing nothing (56.5% of the time). The authors comment in particular that much of the day was spent doing nothing, a "negative" behaviour which is usually not seen as problematic in the same way as more "positive" problem behaviours such as aggression and wandering.

Another observational study was conducted with 34 dementia patients by Ward, Murphy & Weinman (1992), who videotaped the wards and then categorised the behaviours into nine main groups, including posture, eating, mood and aggression. They also found low levels of activity and low levels of engagement between patients and other residents/staff, and suggest the low levels of behavioural disturbance found in their study may be due to the effect of medication.

Brooker, Sturmey, Gatherer & Summerbell (1993) have recently developed a new scale - the Behavioural Assessment Scale of Later Life (BASOLL), designed to be used by staff as a screening measure of behaviour in psychiatric patients. The measure was administered over two years to a sample of 177 psychogeriatric patients attending day and out-patient services, as well as inpatient settings.

Information obtained was then factor analysed and three significant factors were obtained: self-care behaviour, memory and orientation, and challenging behaviour. The challenging behaviour factor referred to behaviours which could be offensive or disturbing to others, and items with the greatest loading included "does he/she threaten to harm you?", and "is he/she destructive of materials around him/her, eg clothes, furniture etc?". The scale was therefore developed for use more as a screening device than a specific measure of behaviour, and combines both non-cognitive aspects of dementia ie behaviour with cognitive aspects such as memory and orientation.

In summary therefore, research evidence suggests there is a greater prevalence of aggressive behaviours in dementia patients than in elderly patients with alternative

psychiatric diagnoses, and that generally there are high rates of other behaviours such as agitation and inappropriate behaviours. In addition studies have found in many cases there is a high rate of patients showing so-called “negative behaviour” (Bowie & Mountain, 1993), and many studies do not incorporate the range of both positive and negative behaviours.

The studies vary widely in the type of behaviours observed. Many look specifically at one behaviour such as aggression, and sometimes in great detail (eg Patel & Hope, 1992). Others look at a wider range of behaviours, but often as part of a wider assessment including non-behavioural symptoms such as hearing and motor functioning (eg Nasman et al, 1993).

The wide variation in types of methodology, population samples, and measurement tool used makes comparison between studies extremely difficult. Indeed Mack & Patterson (1994) highlight the lack of scales measuring a complete range of behavioural symptoms, with a reliable system of scaling and clear rater instructions. Information on the prevalence of a wide range of behaviours typically found in residential settings with people with dementia does not seem to be available in a form which would provide a baseline measure.

Also apparent from the research is that certain behaviours such as aggression are frequently triggered by staff interaction with residents, as well as directed towards them. This suggests that targeting interventions at staff should be productive in terms of reducing these behaviours, but also that staff are having to deal with a high rate of these behaviours on a day to day basis - especially those staff working in settings where residents are suffering

from dementia. However the majority of studies are carried out in in-patient hospital settings, and are perhaps limited in generalisability. In addition there is considerably less information about the type and prevalence of behaviours found in residents of non-psychiatric settings, ie ordinary nursing and residential settings.

Finally, the majority of studies measure frequency of behaviour only. However any assessment of the effect that resident behaviour has upon staff must take into consideration how that behaviour is perceived by staff. The next section therefore explores those studies which have measured staff's perception of behaviour as well as its occurrence.

STAFF PERCEPTION OF RESIDENT BEHAVIOUR

Monahan (1993) asked nursing home staff to assess the frequency and difficulty in managing 36 behaviours for a sample of older adults, and found that although there was a great deal of overlap between the two aspects, there were also differences in how these behaviours were rated. Thus for example failure of bladder and bowel control was reported as occurring commonly, but was not rated as difficult to manage, whereas being verbally noisy was rated by staff as being hard to manage, although it did not occur with great frequency. However, only 22 staff were sampled, and no information on reliability or validity of the scale used was available.

Fisher, Fink & Loomis (1993) also examined how the frequency of certain behaviours and staff perception of management difficulty were related (looking at dementia patients in long-term care settings). The behaviours found to be most difficult to manage were physical

and verbal aggression, agitation and depression. This was in contrast to those behaviours which occurred most often - these included disorientation, inability to feed self, and urinary incontinence.

The study was conducted by postal survey, with questionnaires developed specifically for the study - again no information on reliability and validity of the scale was provided. It is arguable that not all items measured by the scale could be strictly defined as behaviour, for example disorientation. Fifty-nine percent of nursing homes approached to take part in the study responded, and a total of 248 staff returned questionnaires. However no information about the proportion of staff returning questionnaires from each home was given, and thus the possibility exists of a sampling bias in the population.

Research into staff perception of behaviour of older adults with dementia is therefore extremely limited. There has however been some research in this area by researchers investigating staff working with people with learning difficulties. This has investigated behaviour within the framework of “challenging behaviour” (CB), a term for which a widely accepted definition is “behaviour of such an intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limit or deny access to and use of ordinary community facilities” (Emerson et al, 1987).

Lowe & Felce (1995) carried out a study in which carers of people with learning disabilities were asked to rate the frequency of occurrence and management difficulty of 13 types of behaviour over eight time points. Settings included family homes, hospitals and community

residences. They concluded from the pattern found that "behaviours which created the biggest social impact or implication for the duty of care carried by carers were those rated as presenting severe management problems" (p120) - most difficult to manage were behaviours such as wandering away, and sexually inappropriate behaviour.

The authors then followed this up with a further study looking at the characteristics of people referred to specialist support services for people with severely challenging behaviour. It was found that an important defining feature characterising those who were referred was that their behaviour was "outer-directed" and disruptive. Other behaviours which were conceptualised within the framework of challenging behaviour, such as withdrawal and engagement in repetitious movements or speech, were not rated as posing an equivalent level of challenge.

It seems from previous research with older adults therefore that there may be a contrast between the rates at which behaviours occur, and how they are perceived by staff. However there is a paucity of research investigating this difference with staff working with older adults, and those studies which do exist have methodological flaws.

Research conducted within the learning disability field has thrown up some interesting findings - in particular that behaviours tend to be perceived as difficult to manage by staff if they carry implications about the duty of care, or create a social impact. Outward directed behaviours are perceived as more problematic than more "inner-directed" behaviours such as withdrawal - this finding is interesting in the light of Bowie & Mountain's (1993) finding that older adults in their sample spent much of their day doing nothing.

Although findings cannot necessarily be generalised from a learning disability staff population to one working with older adults, it seems a variety of factors can contribute to what degree a behaviour is construed as a problem to staff, for example its social impact, as well as the nature of the behaviour per se. In addition the framework of challenging behaviour used within learning difficulty research is a useful one conceptually, given that it implies a wide range of behaviours, both positive and negative, and that its emphasis is upon meeting challenging behaviours with solutions by organisations, and this framework will be used in the present study.

This suggests the actions of staff will have an effect on the challenging behaviours exhibited by residents, ie that the effect of challenging behaviour is bi-directional. However this study focuses primarily upon the effect of challenging behaviour upon staff, with the next section outlining research in this field.

EFFECTS OF RESIDENT BEHAVIOUR UPON STAFF.

Although there has been much research on specific correlates of distress in carers (usually relatives), and also some work on stress experienced by trained nursing staff, there has been relatively little with untrained staff, who in many settings are the staff providing hand-on care. However it is possible that certain behaviours are particularly distressing to these staff, and information about this would be useful in helping target interventions and training.

Some studies have been conducted in the learning disability field which investigate staff reactions to "challenging behaviour". Bromley & Emerson (1995) conducted a survey of

staff working with challenging behaviour in residential, day-care and community settings. Staff were asked to indicate what proportion of the full staff group usually felt various emotions during their work, and found typical reactions to episodes of challenging behaviour included sadness, anger, fear and disgust.

Such reactions are important as they may serve to guide staff behaviour towards residents - for example staff may be more likely to avoid a certain person whose behaviour they find distressing. A behaviour which produces more attention from staff, even though such attention may be negative, may serve to reinforce the behaviour. Respondents also reported that the greatest sources of stress were the unpredictability and lack of solutions to the behaviour, and their own difficulty in understanding why the behaviour was occurring.

Some research has also been carried out with staff working with older adults. Everitt, Fields, Soumerai & Avorn (1991) investigated the relation between staff distress and resident behaviour in nursing homes, measuring the frequency of seven types of behaviour in older adults who were receiving some form of psychoactive medication. The most common behaviour problems rated were agitation (42%), withdrawal (33%) and noisiness (27%). Physical abuse resulted in distress in staff 92% of the time and verbal abuse 90% of the time, whereas wandering was considered less distressing by staff (50% of the time).

Some studies have looked at specific behaviours, especially aggression. Dougherty, Bolger, Preston, Jones et al (1992) interviewed staff working with older adults in a long-term care hospital about their exposure to aggressive and disruptive behaviour. They found that exposure to both physical and verbal aggression were negatively correlated with job

satisfaction, and that the degree of exposure to aggression whilst working was the best negative predictor of overall job satisfaction.

MacPherson, Eastley, Richards & Mian (1994) investigated care staff working in various institutional settings for older people, including long-stay wards, residential homes, private nursing homes and "Elderly Mentally Infirm" (EMI) settings. The authors measured psychological disturbance in staff with the GHQ-30, and also staffs experience of aggression over the previous week (number of verbal and physical assaults).

GHQ scores reported by staff were found to be lower than those which would be expected within the general population, and "contradicts the view that such work is inherently more stressful than other types of employment" (MacPherson et al, 1994, p385). However, although the mean response rate over settings was 67.4% this varied widely between settings. There were also high rates of long-term sickness in some units, for example nine out of eighteen staff in one home. This is likely to create a sampling bias, and the authors suggest their findings may have been affected by the more distressed staff not participating in the study.

A further finding was that there was no significant difference in the level of distress between the different settings, even though residents are selected differently for each type of facility and there were differing degrees of behavioural problems across settings. This may be due to different staffing levels in each setting, or perhaps other variables having an impact on staff well-being. However the investigators did find a significant relationship between staff psychological disturbance and reports of aggression by residents over the previous week.

Several studies have therefore investigated whether there is a relationship between resident behaviour and staff psychological well-being. Those looking at an older residential population have tended to find an association between psychological disturbance and aggression (verbal and/or physical) from residents. Aggression has also been found to be negatively correlated with job satisfaction. However, the studies have investigated the effect of a limited range of behaviours, and primarily the effect of aggression.

What is also missing is investigation into the feelings elicited in care staff working with older adults by the wide range of behaviours they may have to face. This is an important issue in highlighting which kind of behaviours may affect staff in such a way that they may avoid interaction with a resident. It is important also to find out whether distress amongst staff is related to how difficult to manage a behaviour is perceived, as well as to how often a behaviour occurs.

ORGANISATIONAL FACTORS RELATED TO STAFF PSYCHOLOGICAL WELL-BEING.

A further area of investigation into psychological well-being of care staff has looked at organisational variables, a number of which have been found to be related to staff's experience of stress. For example Bailey (1985) identified common sources of stress in hospital nurses to include degree of knowledge of nursing and nursing skills, workload, bureaucratic constraints, and interpersonal relationships with colleagues.

Another study, conducted by Gentry, Foster & Froehling (1972), compared nurses working in a coronary care unit with those working in a medical-surgical ward. They found that despite the settings being almost identical in terms of task demands and types of patient, nurses in one setting were much more stressed than in the other. They also found a number of organisational factors which distinguished the units from each other, including the degree of effort made to provide staff support, and degree of provision of further training.

McGrath, Reid & Boore (1989) cite the finding that two major sources of stress in nurses are identified from available descriptive research: patient related factors, and administrative and organisational factors. They undertook a study with a sample of qualified nurses up to and including sister/charge nurses, who were sent questionnaires asking about various professional and personal sources of stress, coping mechanisms, and behavioural outcomes such as absenteeism from work. Organisational factors were found to cause greater distress than patient related factors, the most commonly reported stressors being not having enough time to perform the requirements of the job, and resource rationing.

Organisational factors have also been found to be important for staff working in learning disability settings. For example Bromley & Emerson (1995) asked staff working with clients with challenging behaviour to identify any general issues which they felt contributed to stress during their work. As well as identifying lack of time available with which to work with clients, 17% of respondents cited lack of managerial support available to staff, and 13% identified problems in communication between staff as stressors.

Another study was conducted in small staffed houses for people with learning disabilities by Hatton, Brown, Caine & Emerson (1995), who explored stressors reported by direct care staff and the coping strategies used to deal with them. Staff working in all homes rated violent user behaviour as a stressor, and some also reported unpleasant user habits to be stressful (eg loudness and drunkenness). All other stressors reported were organisational, and included limited chance for personal or professional advancement, lack of recognition for the work done (eg by supervisors), excessive work load, and staff related factors such as incompetent staff or high turnover. The authors concluded that "perceived work stress, together with uncertainty concerning job tasks and limited opportunities for personal advancement, were perceived to have a high impact on work performance" (p252).

Moore, Ball & Kuipers (1992) measured psychological well-being, job satisfaction, and coping style in relation to events at work, in staff working in hostels/day care settings with adults with various long-term mental health needs, for example psychotic illness. Organisational stressors identified by staff were role overload - 17 staff (49%) and role ambiguity - 7 staff (20%).

Few studies have investigated organisational factors contributing to stress in staff working with older adults. One was conducted by Benjamin (1991), who asked staff members working in a long-term unit for older people, and two long-stay geriatric wards (ie non-psychiatric settings) to record the frequency of occurrence of 34 stressors over the previous three months. The 34 items were categorised under five groups, as follows: work overload, difficulties relating to other staff, difficulties involved in caring for the critically ill, concerns over treatment of residents, and dealing with difficult or helplessly ill residents.

Multiple regression revealed that the factor which most explained variance in the frequency with which stressful events were experienced was job role. In particular, staff with higher ranking roles, for example charge nurses, managers and senior carers, experienced stressful events with more frequency. The authors suggest this may be due to their having wider responsibilities and greater time pressure.

In conclusion, the majority of studies have investigated organisational factors contributing to stress in hospital nursing staff. These have included workload, staff support, resource rationing and knowledge and skills/opportunities for further training. Studies looking at staff working in residential settings have been primarily with staff working with people with learning disabilities, and have again found factors such as limited chances for advancement, lack of managerial support and communication, and lack of recognition to be important in determining staff psychological well-being.

However, the findings from these studies cannot necessarily be generalised to staff working with older adults, and more specifically to those working with older adults who have a mental health diagnosis. This indicates there is further scope for investigating the role of organisational factors in staff psychological well-being, in particular as in many cases these variables are more open to change than resident-related factors such as the non-cognitive symptoms of dementia. Studies have also tended to look at organisational factors in isolation, when it would be useful to consider them together with resident-related variables. The following section therefore summarises studies which have attempted to look at these factors together.

RESEARCH INVESTIGATING BOTH RESIDENT-RELATED AND ORGANISATIONAL FACTORS.

Research indicates that both resident and environmental factors play a part in staffs experience of stress. "Much of the research literature about what is most stressful for staff caring for dependent elderly in residential settings has identified both organisational issues of the work environment and resident interactions and behaviours as being major sources of stress" (Baillon et al, 1996, p219). However most research studies have looked at these factors in isolation. Only two studies have included several factors together, to look at which are most predictive of psychological well-being amongst staff working in residential settings with older adults.

Benjamin & Spector (1990) looked at resident-related behaviours, the characteristics of carers, and factors related to the work environment, and the degree to which these factors were experienced as stressful by staff. Staff working in three types of setting were included in the study: a short-stay hospital psychogeriatric ward, a traditional long-stay ward for people with dementia, and an NHS/Social Service bungalow for people with dementia.

Staff were given a semi-structured interview in which they were presented with 45 situation constructs printed on cards, and asked firstly whether they had experienced the situation, and if so, how stressful they had found it. Resident-related behaviours were found to be more stressful than organisational factors in the long-stay ward and bungalow. Staff working in the short-term hospital ward found facility-related factors to be the most stressful, possibly due to the fact that the resident population would be continually

changing, therefore resident-related factors may not apply to the same degree. All settings recorded self-related factors to be least stressful.

Frequently reported resident-related stressors included "a resident has had difficulty communicating", and "a resident has undergone personality changes". Examples of organisational factors include "there have been insufficient staff on duty", and "I have only received feedback when my work has been unsatisfactory".

Again this study is difficult to generalise from, as for example facility-related items were generated by taking items from a number of existing scales, and adding additional events suggested by staff. Resident related factors cited are not always behavioural in nature, including for example items such as "a resident has undergone a period of bereavement or loss". Finally, the study included only 27 staff, thus limiting the generalisability of the findings, although the response rate was 100% which rules out sampling bias.

Another study was conducted by Baillon, Scothern, Neville & Boyle (1996) with staff caring for residents living in various social services residential settings, many of whom had dementia. The researchers visited the homes and left questionnaires which were collected several weeks later. A variety of measures were taken, including psychological well-being (GHQ), job satisfaction, and attitudes towards older adults. In addition the authors used the stressful events questionnaire which was based on the previous work by Benjamin & Spector (1990), and assessed resident-related, self-related and facility-related factors.

Of the staff group taking part in the study, 32% scored significantly higher than an equivalent community sample would be expected to score on the GHQ, pointing towards a higher than average level of stress. Staff in all the homes surveyed reported that resident-related factors were experienced most often: however, these were not always rated as most stressful. Instead the results suggested environmental/setting factors and self-related factors were often equally stressful. Those scoring in the GHQ "caseness" range were more likely to report all three factors as occurring more frequently, and being more stressful.

Again the sample size in this study was fairly low (39), although the response rate was reasonably high (76%). The study was also not specifically assessing staff working with people with dementia, in contrast to Benjamin & Spector (1990). Findings from these studies are not clear cut, but suggest that a variety of factors can contribute to staff stress. Further research with a greater number of staff should therefore help to build on this research and clarify the findings.

SUMMARY AND CRITIQUE OF CURRENT RESEARCH.

Studies have shown there are a wide variety of challenging behaviours found in residential settings, and these include both positive behaviours such as aggression, as well as negative behaviours such as doing nothing. Typical behaviours include agitation, resisting help, verbal and physical aggression, and withdrawal. Studies agree that these behaviours are more likely to occur in older adults with dementia than those with an alternative mental

health diagnosis, as rates appear to be at least a third higher in this group. Many studies however measure a limited range of behaviours.

Challenging behaviours such as aggression have been found to be associated with approaches from staff, and are often targeted at them. Some studies have investigated the association between the frequency of behaviours such as aggression and stress, and found these to be related (eg MacPherson et al, 1994). However other studies investigating staff working with older adults have found the behaviours which occur with the greatest frequency are not necessarily those perceived by staff as most difficult to manage (eg Fisher et al, 1993). Many studies also have a possible sampling bias (eg MacPherson et al, 1994). Research is also lacking into the feelings elicited by such behaviours by older adults, as carried out in learning difficulty settings (eg Lowe & Felce, 1995).

There is also a general lack of information about behaviours found in residents who do not suffer from a mental illness and who are living in residential/nursing homes. Studies which have used such residents as a control have tended to focus on one behaviour only - for example MacPherson et al (1994), looking at the relationship between aggression and GHQ score. As a lower incidence of challenging behaviour would be expected in this group, using such residents within research studies would serve as a control in defining the relationship between resident behaviour and staff stress.

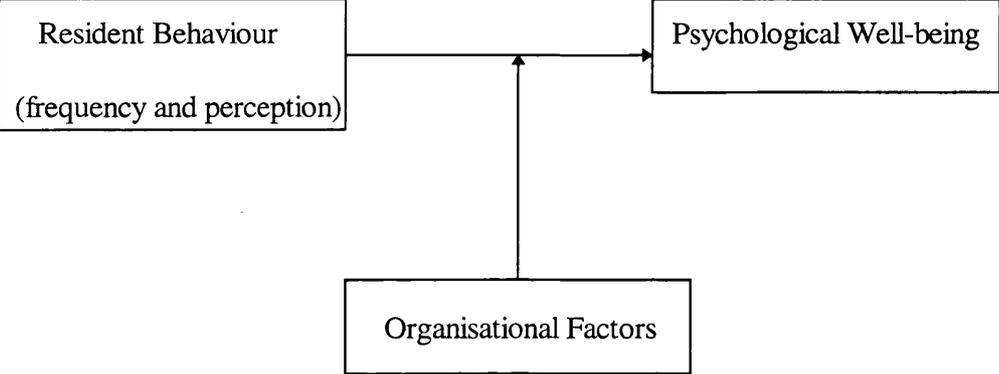
Research investigating the role of organisational factors in psychological well-being of staff has most often been carried out with hospital nurses, although there is some research investigating staff working in learning disability settings. This has found a variety of factors

to be of importance, for example role ambiguity and overload. The limited information available on staff working with older adults suggests organisational factors are likely to be very important to well-being (eg Benjamin 1991), and there is further scope for investigation in this area.

The two studies which have looked at both organisational and resident-related factors together have different findings. One (Benjamin & Spector, 1990) found that resident related behaviours were perceived as more distressing than organisational ones in two of the three settings, while the other (Baillon et al, 1996) found both of these factors were of equal importance. Both studies had low numbers of participants, and one study used settings which would have had patients both with and without dementia, thus possibly confounding the results. It is arguable that they would have benefited from inclusion of a low behaviour control group in order to tease out the individual effect of behaviour.

Although studies have examined both factors, none has investigated whether there is a relationship between them, and if so, what is the nature of the interaction? It could be for example that the effects of resident behaviour are moderated by organisational factors which act as a buffer, as illustrated in Figure 1.

Figure 1: Hypothetical relationship between resident behaviour, organisational factors, and staff psychological well-being.



AIMS AND RESEARCH QUESTIONS / HYPOTHESES.

1. Challenging Behaviour in Older Adults.

This study will firstly investigate the frequency and range of challenging behaviour in older adults living in residential settings. It will also measure staff perception of how disruptive/difficult to manage these behaviours are. Both the frequency and difficulty in managing a wide range of behaviours will be measured with the Challenging Behaviour Checklist (CBC, Cook & Woods, 1998), a recently developed questionnaire incorporating 28 different behaviours, as previous studies have lacked a reliable and valid tool for measuring behaviour. The CBC also includes a measure of physical dependency, and thus this potential confounding variable can be controlled for within the study

Two groups will be compared: the first group residents with dementia living in mental health settings, and the second group residents living in nursing home settings who are primarily physically frail, but who are not specifically identified as having dementia or alternative mental health problems.

In addition, as much of the previous research into prevalence of CB is limited, for example in the range of behaviours included and the incomparability between studies, this study will aim to provide a baseline measure of behaviours. Both frequency and staff perception of the difficulty in managing each behaviour will be assessed, together with the relationship between them. The study will also ask qualitative questions about the behaviours found most distressing by staff, and emotions elicited by challenging behaviours.

1 a. What is the range and prevalence of challenging behaviour found in mental health and nursing homes for older adults?

Hypothesis. There will be a higher frequency of challenging behaviour recorded for residents in the dementia group than in the nursing home group.

1 b. What is the relationship between how often a behaviour occurs, and how difficult staff find the behaviour to manage?

1 c. Which behaviours are perceived by staff as personally most or least distressing?

1 d. What emotions are typically elicited in staff by challenging behaviours?

2. Staff Support.

The second aim of the study is to build on previous work, for example by Benjamin (1991), suggesting organisational variables are important in determining staff psychological well-being. A staff support questionnaire recently developed by researchers working with staff in learning disability settings, and including questions on what kinds of support are perceived as helpful by staff, will be used (Harris & Thomson, 1993).

2a. What kinds of organisational support are found helpful by staff?

3. The relationship between resident behaviour, staff support, and staff psychological well-being.

The study will measure psychological well-being in staff, and the association between challenging behaviour, staff support and staff psychological well-being. It will look more specifically at whether high frequencies of challenging behaviour are related to staff well-being, or whether this is more closely associated with the perception of how difficult the behaviours are to manage. It will also assess whether low levels of staff support are associated with poor psychological well-being in staff.

The final question asked in the study will be whether good staff support acts as a buffer against the effect of CB on well-being. This will investigate the accuracy of the model suggested in Figure 1 (page 32).

Hypothesis. A high degree of resident challenging behaviour and low staff support will be associated with low staff psychological well-being.

3 a. Does staff support act as a moderating variable between CB and staff stress?

CHAPTER 2. METHOD

DESIGN

The study used a two groups comparison design. The dementia group consisted of staff working in mental health settings with older adults with dementia, and the nursing home group were staff working in nursing homes with residents who were physically frail rather than with a primary diagnosis of dementia. The aim was therefore to compare two staff groups working with residents who differ in level of challenging behaviour.

PARTICIPANTS

Participant Characteristics

96 staff took part in the research, 51 (53%) working in mental health settings (dementia group) and 45 (47%) in nursing homes. The average age of participants was 36 years, and ranged from 17 to 59 (dementia group mean age 38, SD 10.60: nursing home group mean age 34, SD 10.82). There were 18 men and 76 women (2 unknown), and the proportion of men to women in the two groups did not significantly differ ($\chi^2 (1) = 1.38, n.s.$).

Staff were either trained nurses (n=26), or care assistants (n=70). Years of experience working with older adults ranged from 0 to 40 years, with a mean of 7 years (SD 7.24). The ethnic group of staff is shown in Table 1.

Table 1. Ethnic Group of Participants.

Ethnic Group	Dementia Group	Nursing Home Group
Asian	11	1
Black	11	3
White	26	39
Other	3	2

The dementia group therefore came from a wider variety of ethnic backgrounds than the nursing home group, where a higher proportion were white ($\chi^2 (3) = 15.39, p < 0.01$).

Settings

The dementia group were recruited from four mental health settings: a long-stay dementia ward in an NHS hospital, and three residential homes for people with dementia. The nursing home group worked in one of three nursing homes taking part in the study.

Recruitment Procedure

The four dementia settings had links with local psychology services and had given provisional agreement to the local area psychologist to the research taking place. The

researcher subsequently met with the managers to provide further information about the study, and obtained agreement after these meetings.

The researcher had links with one of the nursing homes having done a clinical placement in the area and re-contacted them about the study. The remaining settings were identified by obtaining a list of nursing homes from the area social services and telephoning several about the research. Two of these expressed interest over the phone. The researcher subsequently met with the managers to explain the study further, and agreement was given after these meetings.

Access to staff was dependent on the time available in the home, and also upon which staff were available on any one shift. Of the staff approached directly by the researcher to take part (n=26), only three refused. In the remaining five settings, meetings were set up by the managers and therefore it is unknown how many staff refused, and how many were not sampled because they were unavailable. However there was no known systematic bias in sampling. Table 2 presents information about the number of residents in each home. It also contains the number of day staff working in each setting, the number of staff taking part in the study in each setting, and the percentage of staff sampled.

Table 2. Description of Settings and Sample Representativeness.

Dementia Group	No. of day staff	No. of staff sampled	% staff sampled
1. A ward in an NHS hospital, 26 residents, (4 respite).	20	15	75%
2. EMI setting, 18 residents.	15	10	67%
3. EMI setting, 24 residents.	23	16	70%
4. EMI setting, 12 residents.	14	10	71%

Nursing Home Group	No. of day staff	No. of staff sampled	% staff sampled
5. Nursing home, 40 residents	27	22	81%
6. Nursing home, 53 residents (12 respite)	39	9	23%
7. Nursing home, 40 residents.	25	14	56%

The percentage of staff sampled ranged from 67 to 75% in the dementia group settings. There was more variation in the nursing home settings, with only 23% of staff sampled in nursing home 6 due to time pressures on staff.

Ethical Issues.

Ethics approval for the study was obtained from three local NHS trust Research Ethics Committees. These were,

1. Harrow Research Ethics Committee, Northwick Park & St Marks NHS Trust.
2. Hillingdon Ethics Committee, Hillingdon NHS Trust.
3. Joint UCL/UCLH Committees on the Ethics of Human Research, Camden & Islington NHS Trust.

The ethics letters are appended at Appendices 1,2 and 3. A sample information sheet and consent form are at Appendices 4 and 5.

MEASURES

The complete questionnaire booklet is shown at Appendix 6. Demographic information collected on staff included gender, age, number of years working with older adults, and qualifications.

Challenging Behaviour Checklist (CBC).

The challenging behaviour checklist (see Appendix 6) has recently been developed by Cook & Woods (1998), and is designed to be completed by staff working with older adults. The original scale contains a list of 25 behaviours, and staff are asked to rate the frequency of these behaviours over the past three months, on a scale of 0 (never displayed) to 4 (daily or more). In addition staff are asked to rate how difficult the behaviour is to manage on a scale of 1 (minimal disruption, easy to cope with), to 4 (very disruptive). Thus the scale incorporates a measure of subjective judgement of the effect of the behaviour, as well as how often it occurs. The total frequency scores are added to the total difficulty to manage scores to provide an overall challenging behaviour score, ranging from 0 up to a score of 224.

Inter-rater reliability was found to be 0.80 with 2 pairs of raters rating 90 residents (Cook & Woods, 1998). Test-retest reliability was 0.80 after four days. Concurrent validity was 0.89 with the Behaviour Rating Scale of the CAPE (Cook & Woods, 1998). Factor analysis revealed six factors in the scale: confusion/disorientation, aggression and noise, apathy and lack of self-care, negative social behaviour, demanding behaviour, and lack of inhibition.

The scale was chosen for this study as it contains a wide range of behaviours, both positive and negative, and is designed for use in residential settings with people with dementia. It was specifically developed within a framework of challenging behaviour. In contrast to many existing scales, it also contains a rating of how difficult staff perceive each behaviour

to be to manage. It is designed to be completed by staff on a resident whom they know well, and the scale also contains a brief section about the resident's physical ability, where residents are scored on a scale of 0 up to 2 or 3, and scores are combined to give an overall physical ability score.

Three further items were added following discussion with psychologists working in the field (biting, pinching and racial abuse), and reliability of the 28-item scale was compared with the 25-item version using Chronbach's Alpha. Results are shown in Table 3.

Table 3. Internal Consistency of the Challenging Behaviour Scale.

Scale Characteristics	Frequency	Difficulty
25 Items	Alpha = 0.80	Alpha = 0.89
28 Items	Alpha = 0.82	Alpha = 0.89

The reliability of the scale was not greatly altered by adding the three extra items, and therefore the 28-item version was used in the analysis.

Staff Support.

Participants were also asked to complete the Staff Support Questionnaire (Harris & Thomson, 1993), a self-report measure of support which has been used to evaluate support for staff working with people with learning disabilities. It contains 24 questions altogether. 20 of these are closed questions, either asking how satisfied staff are with various aspects of

support on a scale of 1 to 5, or yes/no questions with responses scored 1 or 2. The remaining open question responses were categorised.

The questionnaire is organised into four sections:

1. Role ambiguity. Questions are related to lack of clarity about the job, eg “how clear are you about the main objectives you should be working towards in your job?”
2. Support. This includes items relating to practical support (eg with crises), emotional support, and supervision, eg “do you receive regular supervision sessions or performance reviews?”
3. Policies relating to risk situations, eg “have risk situations been clearly identified at your place of work?”
4. Job satisfaction, eg “I often think about finding another job”.

Test-retest reliability was found to range from 70% to 100% for different items, with a mean reliability figure of 87.4% (Harris & Thomson, 1993). Validity was calculated by correlating SSQ score to GHQ score, and the authors found support as measured by the SSQ to be significantly inversely related to stress levels scored on the GHQ (Harris & Thomson, 1993).

Psychological Well-being.

The General Health Questionnaire-28 (GHQ-28, Goldberg & Hillier, 1979) is a widely used self-administered screening questionnaire which was originally developed to detect psychiatric disorder in consulting settings (GHQ, Goldberg, 1978). In this study, the 28-

item version was used. In addition to its single severity score it contains four subscales which give measures of different aspect of psychiatric disturbance, namely somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. Factor analysis revealed 59% of variance to be due to these four factors in one sample, with an additional 35% due to a general factor (Goldberg & Hillier, 1979). Responses were scored using the Likert (0123) scoring system (Goldberg & Hillier, 1979), in order to increase sensitivity of measurement. The range of scores is from 0 to 84, with a high score indicating poor psychological well-being.

Additional Questions.

The questionnaire booklet also contained qualitative sections on challenging behaviour and staff support (see Appendix 6). Open questions were asked with space for staff to write answers about which behaviours they found distressing and why, and comments about what kind of staff support was helpful. Staff were also asked about sources of support outside work.

PROCEDURE

The procedure varied slightly across the different settings, due to factors within the homes such as time available for staff to take part in the research. In all of the nursing homes, and two mental health settings, the researcher met with staff in groups of two or more, often at handover meetings. Staff were told that the study aimed to investigate the behaviour of

residents they were caring for, the sources of support available at work, and their own general health and psychological well-being.

Staff were each given a booklet containing the questionnaires, together with an information sheet and consent form (Appendices 4 and 5), and the researcher went through this explaining each individual section. It was stressed that all responses would be confidential, and that their answers would be compiled with those of staff from other residential homes to give an overall view of degree of staff support present and psychological well-being.

Participants were asked to complete the questionnaire choosing a resident they knew well to rate on the 28 different behaviours. Criteria were that the resident should not already have been chosen, and that they should either have (mental health settings), or not have dementia (nursing home settings). The researcher then stayed with staff members in order to answer questions while staff were filling out the questionnaire, and collected questionnaires when they had been completed.

In the remaining two mental health settings, the researcher approached staff members individually (n = 26). The same procedure of explaining the study was followed, and again the researcher sat with staff while they completed the questionnaire. All staff were then thanked for taking part in the study, and informed that copies of the study results would be sent to the residential homes once the data had been analysed.

Statistical Analysis.

Data were analysed using SPSS-X 6.1 statistical package.

CHAPTER 3. RESULTS

RESIDENT CHARACTERISTICS.

Each member of staff completing questionnaires rated the behaviour of a resident they knew well, thus 96 residents were rated. The mean age of residents was 81 (SD 8.53), ranging from 61 to 103 and with an approximately normal distribution. Residents in the nursing home group were significantly older than those in the dementia group (mean age of nursing home residents = 85, SD 8.74, mean dementia resident age 79, SD 7.60, $t(90) = -3.14, p < 0.01$). Gender of residents in the two groups is shown at Table 4.

Table 4. Resident's Gender according to Group.

Gender	Dementia Group	Nursing Home Group
Male	23	9
Female	28	36

There were significantly more female residents than male in the nursing home settings ($\chi^2(1) = 6.77, p < 0.01$), and as women outnumber men by 3:1 over the age of 85, the nursing home sample is probably more representative. Scores for physical ability were normally distributed, and there was no significant difference in physical ability between the dementia and nursing home residents (mean dementia physical ability score 4.25, SD 2.37, mean nursing home physical ability score 4.23, SD 2.22, $t(93) = 0.06, n.s.$).

Two residents in the dementia group and three in the nursing home group were rated as currently depressed. Residents in the dementia group settings all had dementia. In addition five residents rated in the nursing home group also had dementia. In order to determine whether this would act as a confounding variable, the Phi-coefficient was calculated for the association between group and dementia/no dementia. The strength of this association was highly significant (Phi value 0.90, $p < 0.01$).

It was decided therefore that analysis of levels of each of the 28 challenging behaviours, and of total challenging behaviour scores, would be carried out comparing residents with dementia ($n=56$) with those without dementia ($n=40$). This would therefore provide information on levels of challenging behaviour in older adults with and without dementia. However, the remaining analysis was carried out by nursing home/dementia group, as the aim of the study was to compare staff working in the different settings.

RESIDENT BEHAVIOUR

The aim of this part of the study was to investigate and compare the range and prevalence of challenging behaviour in older adults with and without dementia, living in residential settings. Frequency of behaviour, and also staff perception of how difficult the behaviour was to manage were both recorded.

Frequency of Behaviours in Residents With/Without Dementia.

The CBS first measures the frequency of 28 behaviours, with scores ranging from 0 (never occurs) to 4 (occurs daily or more) for all behaviours. The distributions of the scores were checked first using skewness and kurtosis measures, and these were found to be below two for many behaviours. However histograms of each behaviour revealed the majority were not normally distributed. Non-parametric analysis was therefore carried out.

Table 5 illustrates the prevalence of the behaviours in each group (mean frequency score), together with non-parametric analysis of the difference between groups. The following behaviours were found to be significantly more frequent in residents with dementia: physical and verbal aggression, shouting, wandering, restlessness, lack of motivation, clinging, lack of self-care, faecal smearing, inappropriate urinating, pinching and biting.

Table 5. Frequency of Behaviour Scores for Residents With/Without Dementia.

Behaviour	Dementia Group		No Dementia Group		Mann-Whitney (U)
	Mean	SD	Mean	SD	
Physical Aggression	1.60	1.63	0.55	1.17	660.5 ***
Verbal Aggression	1.64	1.66	0.70	1.38	709 ***
Self-Harm	0.45	1.04	0.25	0.84	1014.5
Shouting	1.78	1.81	1.05	1.69	854 *
Screaming/Crying Out	1.18	1.68	0.95	1.50	1046
Perseveration	1.52	1.72	1.00	1.57	939
Wandering	2.02	1.89	0.27	0.93	572.5 ***
Restlessness	1.96	1.76	1.05	1.65	770 **
Lack of Motivation	2.46	4.39	1.25	1.61	859.5 *
Clinging	1.41	1.68	0.47	1.06	755.5 ***
Interfering with others	1.09	1.56	0.55	1.08	946.5
Pilfering/Hoarding	0.84	1.56	0.52	1.26	1030
Suspiciousness	0.54	1.17	0.65	1.21	1056.5
Manipulative	0.54	1.21	0.88	1.44	990.5

Note1. *p<0.05, **p<0.01, ***p<0.001.

Table 5 Continued.

Behaviour	Dementia Group		No Dementia Group		Mann-Whitney (U)
	Mean	SD	Mean	SD	
Lack of Self-Care	2.95	1.63	0.30	0.82	296.5 ***
Spitting	0.59	1.25	0.28	0.88	991.5
Faecal Smearing	0.71	1.26	0.23	0.70	877 **
Inappropriate Urinating	0.79	1.46	0.00	0.00	800 ***
Stripping	0.55	1.01	0.33	0.92	972.5
Inappropriate Sexual Behaviour	0.13	0.47	0.15	0.70	1098
Sleep Problems	1.14	1.58	0.60	1.06	976
Non-compliance	1.10	1.46	0.63	1.13	917
Dangerous Behaviour	0.25	0.77	0.03	0.16	1006
Demands attention	1.20	1.70	1.63	1.72	963
Lack of Occupation	1.95	1.87	1.53	1.78	960
Pinching	1.00	1.50	0.44	1.01	890 *
Biting	0.54	1.17	0.20	0.88	944 *
Racial Abuse	0.36	0.88	0.32	0.89	1075

Note. *p<0.05, **p<0.01, ***p<0.001

Difficulty in Managing Behaviours in Residents With/Without Dementia

Staff also rated each behaviour on how disruptive/difficult to manage it was when it occurred with a particular resident. Residents were rated from 1 (behaviour causes little or no disruption and is not difficult to manage) up to 4 (behaviour is extremely disruptive and difficult to manage when it occurs). Again the majority of behaviours were not normally distributed. Table 6 illustrates the mean difficulty to manage scores for residents with/without dementia, with analysis of the difference between groups.

The following behaviours were rated as significantly more difficult to manage in the dementia group: physical and verbal aggression, shouting, wandering, restlessness, lack of motivation, clinging, lack of self-care, faecal smearing, inappropriate urinating, and biting.

Table 6. Difficulty in Managing Behaviour for Residents With/Without Dementia.

	Dementia Group		No Dementia Group		Mann-Whitney (U)
	Mean	SD	Mean	SD	
Behaviour					
Physical Aggression	1.30	1.35	0.40	0.90	633 ***
Verbal Aggression	1.18	1.22	0.48	0.93	699 ***
Self-Harm	0.33	0.82	0.20	0.65	1014
Shouting	1.18	1.35	0.53	0.85	803 *
Screaming/Crying Out	0.75	1.19	0.58	0.93	1046
Perseveration	0.76	0.99	0.48	0.78	926
Wandering	1.22	1.38	0.12	0.40	563 ***
Restlessness	1.18	1.21	0.53	0.88	736 **
Lack of Motivation	1.18	1.23	0.68	0.94	834 *
Clinging	0.86	1.21	0.23	0.53	755 **
Interfering with others	0.76	1.20	0.43	0.87	944
Pilfering/Hoarding	0.45	0.95	0.30	0.69	1054
Suspiciousness	0.26	0.55	0.55	1.09	996.5
Manipulative	0.20	0.40	0.63	1.10	924

Note1. *p<0.05, **p<0.01, ***p<0.001.

Table 6 Continued.

Behaviour	Dementia Group		No Dementia Group		Mann-Whitney (U)
	Mean	SD	Mean	SD	
Lack of Self-Care	1.37	1.22	0.18	0.45	367.5 ***
Spitting	0.49	1.07	0.18	0.59	981
Faecal Smearing	0.66	1.14	0.10	0.30	848 **
Inappropriate Urinating	0.51	0.94	0.00	0.00	800 ***
Stripping	0.43	0.82	0.18	0.45	947
Inappropriate Sexual Behaviour	0.07	0.26	0.15	0.70	1100
Sleep Problems	0.82	1.26	0.48	0.75	999
Non-compliance	0.80	1.06	0.50	0.85	928
Dangerous Behaviour	0.21	0.65	0.05	0.32	1009
Demands Attention	0.67	1.09	0.88	0.99	934.5
Lack of Occupation	1.00	1.19	0.58	0.64	927.5
Pinching	0.71	1.03	0.38	0.87	899.5
Biting	0.39	0.87	0.15	0.66	945 *
Racial Abuse	0.26	0.62	0.25	0.67	1071

Note. *p<0.05, **p<0.01, ***p<0.001.

The Relationship between Frequency of Behaviour score, and Difficulty to Manage score.

Frequency scores for all of the 28 behaviours were significantly correlated with that behaviour's difficulty to manage score (individual correlations are shown in Table 7). It was unclear whether these behaviours were rated as more difficult to manage because this was indeed the case, or whether they were rated as more difficult simply because they occur more often. In practical terms however, the frequency and difficulty to manage scores were not used as separate variables in further analysis due to this high association between them.

Table 7. Correlations Between Frequency Scores, and Difficulty to Manage Scores, for the 28 Behaviours.

Behaviours	Correlation Coefficient (r)
Spitting	0.94 ***
Faecal Smearing, Inappropriate Urinating, Pinching & Biting	0.90 ***
Physical Aggression, Interfering with Other People & Stripping	0.88 ***
Verbal Aggression, Self-harm, Non-compliance & Racial Abuse	0.87 ***
Pilfering/Hoarding & Sleep Problems	0.85 ***
Wandering, Clinging & Manipulative Behaviour	0.84 ***
Shouting, Screaming/Crying Out & Perseveration	0.83 ***
Restlessness	0.82 ***
Inappropriate Sexual Behaviour	0.80 ***
Suspiciousness	0.79 ***
Demands Attention	0.78 ***
Lack of Self Care	0.77 ***
Dangerous Behaviour	0.76 ***
Lack of Occupation	0.70 ***
Lack of Motivation	0.33 **

Note 1. *p<0.05, **p<0.01, ***p<0.001.

Overall Challenging Behaviour Scores.

The total frequency and difficulty to manage scores were aggregated for residents with and without dementia. In addition these total frequency and difficulty scores were combined to give the overall challenging behaviour score (range of scores from 0 to 224, with a high score indicating high challenging behaviour). Mean values and standard deviations are shown in Table 8. Table 8 also includes in italics the same values, for the experimental group and the control group (ie including those five residents with dementia).

Table 8. Challenging Behaviour Scores for Residents with/without Dementia, and Dementia/Nursing Home Group.

Group	Total Frequency of Behaviours.		Total Difficulty in Managing Behaviours		Total Challenging Behaviour Score.	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
With Dementia	31.75	15.12	20.17	14.21	51.50	28.77
<i>Dementia</i>	<i>32.15</i>	<i>14.94</i>	<i>20.55</i>	<i>14.30</i>	<i>52.27</i>	<i>28.66</i>
Without Dementia	16.76	15.29	10.07	10.32	26.85	25.17
<i>Nursing Home</i>	<i>17.98</i>	<i>15.79</i>	<i>10.78</i>	<i>10.81</i>	<i>28.76</i>	<i>26.18</i>

Each of these scores had an approximately normal distribution, and analysis using independent t-tests was carried out to assess whether there was a difference in challenging behaviour between residents with and without dementia. The combined scores were found to be significantly greater in the dementia group, as follows: total frequency of challenging behaviour, ($t(94) = 4.76, p < 0.001$); total difficulty of challenging behaviour, ($t(92) = 3.99, p < 0.001$); total challenging behaviour, ($t(92) = 4.33, p < 0.001$).

Finally the relationship between challenging behaviour scores, and residents age and gender was investigated. There was no significant difference in challenging behaviour scores for male versus female residents: total frequency of challenging behaviour, ($t(92) = 0.50, n.s.$); and difficulty of challenging behaviour, ($t(90) = 0.76, n.s.$). Residents' age was not significantly correlated with the total challenging behaviour score (Pearson correlation, $r(69) = 0.09, n.s.$).

Further information obtained about resident behaviour.

After rating their chosen resident on the 28 different behaviours, staff were asked whether there was any one of the behaviours which they personally found most distressing in their general experience working with older adults. Responses were then categorised as 0 if there was no response recorded, or as number one to twenty eight, according to which behaviour had been chosen. The number of staff choosing certain behaviours as personally most distressing are shown in Table 9.

The following behaviours were not chosen as most distressing by any staff: perseveration, interfering with other people, pilfering or hoarding, manipulative behaviour, lack of self-care, inappropriate urinating, stripping, sleep problems or biting.

Staff were also asked why they found the behaviour particularly distressing. Responses were then categorised into 17 categories, which are illustrated in Table 10.

Table 9. Number of Staff choosing each Behaviour as most Personally Distressing.

Behaviour	Times chosen
Physical Aggression	25
Spitting	9
Screaming/Crying Out	7
Verbal Aggression	6
Shouting	5
Demands Attention	4
Faecal Smearing	4
Lack of Occupation	3
Inappropriate Sexual Behaviour	3
Self-harm	3
Lack of Motivation	2
Clinging	2
Non-compliance	2
Dangerous Behaviour	2
Racial Abuse	2
Pinching	1
Suspiciousness	1
Restlessness	1
Wandering	1
No Behaviour Rated as most distressing	13
Total Staff	96

Table 10. Why the Behaviours were Most Distressing.

Response Given	Frequency of Response.
Threat of Physical Harm/Painful	18
Detrimental effects, eg disturbs other residents/staff/relatives	9
Staff actions won't settle resident/can't help	9
Unhygienic/filthy habit	7
Take it personally/Upsets you	5
Resident unable to participate/may decline/waste of life	4
Hard to reason with/deal with	4
Staff are trying to help the resident, with no success	3
Deliberate/controllable behaviour	3
Stops staff from carrying out other duties	3
Shows illness/loss of dignity and respect	2
Behaviour is unpredictable	2
Emotionally and mentally draining	2
Difficult to control your own angry response to the behaviour	1
Inappropriate behaviour at the residents age	1
Challenging to deal with, uses all skills	1
Staff should be able to do more to help resident	1
No response given	21
Total Staff	96

It can be seen therefore that there were a range of reasons why a particular behaviour was considered distressing. One question was whether any of the reasons given as why behaviours were distressing were significantly associated with particular behaviours. If a behaviour had been rated as most distressing five or more times therefore, it was recoded into a value of 0 (not rated) or 1 (rated as present) for each participant. Any reasons which had been given five times or more for why a behaviour was distressing were also recoded into 0 (not given), or 1 (reason given). Chi-square analysis was then used to find whether any behaviours and reasons were associated.

It was found that finding physical aggression the most distressing behaviour was significantly associated with giving the reason of the threat of physical harm ($\chi^2 (1) = 37.65, p < 0.001$). Citing verbal aggression was related to “staff actions won’t settle resident/can’t help” ($\chi^2 (1) = 4.32, p < 0.05$), and choosing screaming/crying out was associated with giving the reason of having detrimental effects such as disturbing other residents ($\chi^2 (1) = 9.96, p < 0.001$). Lastly, those who chose spitting as the most distressing behaviour for them were significantly likely to give the reason “unhygienic/filthy habit” ($\chi^2 (1) = 34.22, p < 0.001$). No further significant associations were found.

A further question asked of staff was how the behaviour they had rated as most distressing made them feel: sixty-nine staff responded to this question, with results shown in Table 11.

Table 11. Feelings Elicited in Staff by their Most Distressing Behaviour.

Feeling Elicited	Frequency of Choice
Upset	14
Angry	12
Frustrated	8
Distressed	7
Disgusted	5
Depressed	5
Frightened	4
Sympathetic	4
Shocked	2
Unclean	2
Embarrassed	2
Drained/exhausted	1
Guilty	1
Scared of getting old	1
Stressed	1
No response recorded	27
Total Staff	96

Those emotions recorded by five or more participants were re-coded into 0 or 1, according to whether they had been cited or not. Chi-square analysis was then carried out to ascertain whether the most distressing behaviour cited elicited a particular emotion in many staff. Staff who cited physical aggression as the most distressing behaviour were likely to report feeling upset ($\chi^2 (1) = 8.23, p < 0.01$). Citing screaming/crying out was associated with staff feeling frustrated ($\chi^2 (1) = 4.04, p < 0.05$), and finding spitting most distressing with feeling angry ($\chi^2 (1) = 3.94, p < 0.05$).

Staff were also asked which of the 28 behaviours they found least distressing in working with older adults (results given in Table 12), and why they felt this behaviour was least distressing (results given in Table 13).

Again, behaviours and reasons which had been chosen as least distressing five or more times were re-coded into 0 (not chosen) and 1 (chosen), Chi-square analysis was then carried out to find out if there were any significant associations between behaviour and reason given. Those staff who found shouting least distressing were likely to say this was because it “can’t be helped/part of illness” ($\chi^2 (1) = 5.24, p < 0.05$), and those who found wandering least distressing to say “does no harm to anyone else” ($\chi^2 (1) = 11.24, p < 0.001$). Staff who chose sleep problems as the least distressing behaviour usually said this was because it gave them something to do/good to be able to help ($\chi^2 (1) = 7.33, p < 0.01$), and this reason also tended to be given by those staff who found demanding attention the least distressing behaviour ($\chi^2 (1) = 19.22, p < 0.001$).

Table 12. Least Distressing Behaviours chosen by Staff.

Behaviour	Frequency Rated
Wandering	10
Sleep Problems	7
Lack of Occupation	7
Shouting	6
Lack of Motivation	6
Demands Attention	6
Verbal Aggression	4
Pilfering/Hoarding	4
Lack of Self-Care	4
Perseveration	3
Clinging	2
Non-compliance	2
Physical Aggression	1
Self-harm	1
Screaming/crying out	1
Restlessness	1
Suspiciousness	1
Spitting	1
Stripping	1
Racial Abuse	1
No Response Given	27
Total Staff	96

Table 13. Reasons Why Behaviours were found Least Distressing.

Reason Given	Frequency Given
Behaviour does no harm to anyone else	14
Gives me something to do/good to help	11
Can't be helped/part of the illness	8
Staff are used to dealing with this behaviour	6
Resident's Choice	5
I can understand the behaviour	4
Staff can keep a watchful eye on the resident	3
Behaviour is not generally disruptive	3
Don't often come across this behaviour	3
The behaviour won't last	2
Of clinical/professional interest	1
Resident needs less attention	1
Can be amusing	1
Staff can ignore this behaviour	1
No response given	33
Total Staff	96

STAFF SUPPORT.

Perceived staff support was measured in both groups, with a high score indicating low support. The questionnaire measured four aspects of staff support - role ambiguity, emotional/practical support, awareness of procedures in risk situations, and job satisfaction. These were also combined, together with a general satisfaction with support score, to form an overall staff support score. Mean and standard deviations for each score in both groups are shown in Table 14, together with the difference between groups.

Table 14. Support Scores in the Dementia and Nursing Homes.

Support Score	Dementia Homes		Nursing Homes		t value (df)
	Mean	SD	Mean	SD	
Role Ambiguity	6.61	2.58	7.78	2.89	-2.10 (94) *
Emotional/Practical Support	11.00	3.55	11.95	2.79	-1.45 (94)
Awareness of Risk Procedures	5.00	1.68	5.58	1.89	-1.58 (94)
Job Satisfaction	5.74	1.81	6.93	2.32	-2.77 (83) **
Overall Support Score	30.08	8.87	34.42	8.16	-2.49 (94) *

Note 1. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note 2. Overall staff support scores could range from 20 to 70, with a high score indicating low support.

Table 14 illustrates that role ambiguity and job dissatisfaction were greater in the nursing home group, and this was also true of the total staff support score. The degree of perceived staff support did not differ between male and female participants ($t(21) = 0.32$, n.s.), or between nurses and care assistants ($t(93) = 0.81$, n.s.). There was no significant correlation between the age of participants and staff support score (Pearson correlation, $r(69) = -0.11$, n.s.).

Further information about staff support

Staff were also asked to describe a source of staff support currently available at work, as well as the kind of support they would like to receive. Staff recorded the following sources of support at work illustrated in Table 15.

Table 15. Sources of Support available to staff.

Current Sources of Support	Frequency
Help/support from other staff	37
Staff meetings	18
Teamwork	4
Support from management and/or other external services eg psychology	4
Mentor system	3
General Information Exchange	2
Occupational Health	1
No Response Given	27
Total Staff	96

Staff were also asked to suggest types of support which they would find helpful: results are illustrated in Table 16.

Table 16: Potential Sources of Support Suggested by staff as Helpful in Alleviating Stress.

Suggested type of support	Frequency
Group support meetings / more staff meetings	8
More support from higher management	8
More training	7
Teamwork	4
Clinical supervision	4
More information about residents	4
100% support at all times	4
More time to talk to other staff	4
Encouragement/praise	4
Clear procedures to follow in dealing with residents	2
Having supportive/confidential atmosphere	2
Help with dealing with certain residents	2
Counselling	1
More staff	1
Emotional and practical help	1
More higher management staff to share responsibility	1
More support re resident's deaths	1
Equality between all staff	1
No response recorded	37
Total Staff	96

Staff were also asked to describe typical ways in which they alleviated stress whilst at work. The majority of staff who responded cited talking to colleagues as their way of dealing with stress at work (24 staff), and many others would take a quiet moment for themselves, eg to have a cup of tea (11). The other main way of dealing with stress was through teamwork (9 staff). The following strategies were also mentioned by staff: singing, learning ways to deal with individual residents, laughing and talking with residents, talking to managers, counting to ten and/or leaving the room, and listening to music.

External sources of support

Finally, staff were asked about other sources of support; namely, whether they received support from a spouse/partner, family, friends, or other sources. Of those who did, 57 staff (59.4%) talked to their spouse/partner about difficulties at work, and 40 (41.7%) to their family. Friends were also a source of support for 42 staff (43.8%), and 5 staff (5%) obtained support from other sources such as the church.

PSYCHOLOGICAL WELL-BEING

Staff psychological well-being was measured with the GHQ-28, using the Likert method of scoring (0123). GHQ scores had an approximately normal distribution, and were greater in the nursing home group (mean score 18.32, SD 12.25) than the dementia group (mean score 14.20, SD 8.65). This difference was just below the significance level ($t(76) = -1.87, p = 0.06$). GHQ score was greater in female staff (mean score 17.01, SD 11.36) than in male staff (mean score 12.33, SD 6.47): $t(46) = -2.33, p < 0.05$. There was no difference in scores between qualified (nursing) and unqualified staff ($t(92) = -1.73, n.s.$).

The relationship between variables.

The final part of the study investigated the relationship between the independent variables and psychological well-being in staff. Table 17 shows the bivariate correlation coefficients for study variables. It can be seen that age and years of experience were highly correlated, and years of experience was correlated to total challenging behaviour. Staff support was the only variable significantly correlated to staff psychological well-being (GHQ score).

Table 17. Intercorrelations of Study Variables.

Variable	1	2	3	4	5	6
1. Age	–					
2. Gender	0.02	–				
3. Years Experience	0.45***	0.20	–			
4. Challenging Behaviour	-0.09	-0.06	0.22*	–		
5. Staff Support	-0.11	-0.04	-0.10	0.17	–	
6. GHQ Score	-0.14	0.17	-0.11	0.12	0.41***	–

Note. *p < 0.05, **p < 0.01, ***p < 0.001.

Contributions of Study Variables to Psychological Well-being

Hierarchical regression was then carried out to examine the role of independent variables upon psychological well-being in staff (results presented in Table 18).

Table 18. Hierarchical Multiple Regression Analysis of Independent Variables as Predictors of Staff Psychological Well-being (n = 96).

Predictor Variable	ΔR^2	β
Block 1	0.05	
Age		-0.14
Gender		0.23
Years of Experience		0.01
Block 2	0.10	
Total Challenging Behaviour		0.07
Staff Support		0.29

Multiple regression demonstrated age, gender and years of experience accounted for 5% of variance in GHQ score ($R^2 = 0.05$, $F(63,3) = 1.24$, n.s.). The addition of challenging behaviour and staff support accounted for an additional 10% of variance in GHQ score ($R^2 = 0.15$, $F(61,5) = 2.12$, $p = 0.07$), and overall prediction of GHQ score approached significance levels.

The Role of Staff Support as a Moderating Variable on the Effect of Challenging Behaviour on Staff Psychological Well-being.

In order to investigate whether staff support acted as a moderating variable between challenging behaviour and GHQ score, a new variable was created by multiplying total challenging behaviour score with staff support score. This new “interaction effect” variable was then entered into a hierarchical regression with age, gender and years of experience entered on the first block, and total challenging behaviour, staff support, and the interaction variable in the second block. The addition of the interaction variable to the regression did not increase the predictability of GHQ score ($R^2 = 0.17$, $F(60,6) = 2.01$, $p = 0.08$). Results are shown in Table 19.

Table 19. Hierarchical Regression Analysis of Independent Variables, and Interaction between Challenging Behaviour and Staff Support, as Predictors of Staff Psychological Well-being (n = 96).

Predictor Variable	ΔR^2	β
Block 1	0.05	
Age		-0.09
Gender		0.20
Years of Experience		-0.04
Block 2	0.12	
Total Challenging Behaviour		0.61
Staff Support		0.49
Interaction between Challenging Behaviour and Staff Support.		-0.63

CHAPTER 4. DISCUSSION

SUMMARY OF AIMS AND FINDINGS.

This study aimed to investigate the range and degree of challenging behaviour in residents living in both EMI (elderly mentally infirm) settings, and nursing homes, together with an assessment of which behaviours are perceived as most difficult to manage by staff working in those settings. It was predicted there would be greater levels of challenging behaviour in residents with dementia than in nursing home residents who were physically frail. The study also aimed to investigate which behaviours were found distressing by staff working in residential settings, reasons why they were distressing, and the range of emotions elicited by challenging behaviours. The study also aimed to build on previous work investigating staff support in residential settings, for example looking at which kinds of organisational support are perceived as helpful by staff.

The study aimed to investigate the ways in which resident challenging behaviour and staff support were related to psychological well-being in staff. It was hypothesised that staff support would act as a moderating variable between challenging behaviour and the psychological well-being of staff working in residential settings.

The majority of the 28 challenging behaviours occurred more frequently in residents with dementia than in those without dementia. Most behaviours were also rated as

more difficult to manage in the residents with dementia than in those without dementia. However, the frequency and difficulty to manage scores were found to be highly correlated for each of the 28 behaviours, and thus it was difficult to determine whether this was an accurate representation of staff perceptions or a problem with the measurement method used.

When asked which of the 28 behaviours they personally found most distressing, staff gave a variety of responses. Most commonly cited were physical aggression, spitting, screaming/crying out, and verbal aggression. There were a range of reasons given as to why these behaviours were found distressing, related both to the resident, the effect of the behaviour on the environment, as well as staff's personal responses to the behaviour. Feeling upset or angry were the most common staff responses to distressing behaviour, and certain behaviours tended to elicit particular responses, for example physical aggression with staff feeling upset. Least distressing behaviours were often found to be wandering, sleep problems, and lack of occupation, and typical reasons for this included that the resident's behaviour was not disruptive to others, or that the behaviour gave staff the opportunity to help the resident.

Perceived staff support was found to be significantly lower in the control group, particularly with role ambiguity and job satisfaction. A variety of sources of support were available to staff, most commonly help and support from other staff, and a number of suggestions were made as to how support could be improved.

Psychological well-being was found to be lower in the nursing home staff group than in the dementia staff group, although this difference did not quite reach significance. GHQ scores were significantly greater in female staff than male, but there was no difference between nurses and care assistants. The level of challenging behaviour in residents was not found to be related to the degree of psychological well-being in staff. However it was strongly related to perceived staff support, with those staff experiencing a low level of staff support having worse psychological well-being than those experiencing a good level of support. There was no evidence that staff support acted as a moderating variable between the challenging behaviour of residents and the psychological well-being of staff.

The results of the study are discussed in more detail in the following sections, together with an explanation of the findings in the light of previous literature. Further areas of research emerging from the study are suggested, together with the clinical implications of the findings.

DISCUSSION OF FINDINGS AND PREVIOUS RESEARCH

Resident Challenging Behaviour

The study provided information on the prevalence of a wide range of behaviours in residents with dementia, and residents living in nursing home settings. The results confirmed previous findings that there is a higher rate of challenging behaviour occurring in residents with dementia than in older adults living in residential settings

who do not have dementia. 28 individual behaviours were assessed, and the majority occurred more frequently in residents with dementia. Rates of physical aggression were almost three times as high in residents with dementia, confirming previous research findings (eg Colenda & Hamer, 1991), and the rate of verbal aggression was over twice as high. The most common behaviours recorded included lack of motivation, lack of occupation, restlessness and lack of self-care.

The high prevalence of so-called “negative” behaviours is in line with previous research which has found low levels of activity in dementia patients, for example Bowie & Mountain (1993). However, lack of motivation and occupation were also rated frequently for control group residents, suggesting this is a problem generally with older adults living in residential settings, not just those with dementia. It also validates the use of “challenging behaviour” as a conceptual framework which can equally be applied to older adults as well as people with learning disabilities, as it incorporates negative behaviour as a challenge for services as well as more typically problematic behaviours such as aggression.

Staff were also asked to rate residents on how difficult each behaviour was to manage when it occurred, following previous research indicating those behaviours occurring most frequently were not usually seen as most difficult to manage (eg Monahan, 1993; Fisher et al, 1993). This was not found in this study: instead difficulty in managing behaviour was significantly correlated to how frequently that behaviour occurred. This could be because staff find these behaviours difficult to manage and disruptive simply

due to the fact they happen often, or may reflect a lack of sensitivity in the measurement method used.

The overall level of challenging behaviour was significantly greater in residents with dementia than in those without. Although five control group residents had dementia, this did not make a great difference to challenging behaviour scores and thus further analysis was continued by group rather than by presence/absence of dementia. What it does highlight is that many nursing homes, while not specifically geared towards residents with dementia, are having to deal with behavioural symptoms of dementia without necessarily having the training or knowledge to enable effective management.

The Effect of Individual Challenging Behaviours upon Staff

Previous research carried out with staff working with older adults has found exposure to physical and verbal aggression to predict psychological distress, and degree of job satisfaction (Everitt et al, 1991; Dougherty et al, 1992; MacPherson et al, 1994). One of the aims of this study was therefore to investigate which behaviours in their experience were found most distressing by staff.

When staff were asked which behaviour they found personally most distressing in their experience working with older people, physical aggression was the most common behaviour cited by far. This was followed by spitting, screaming/crying out, verbal aggression and shouting. These behaviours all had an aggressive component, whereas

the most commonly occurring behaviours such as lack of occupation and motivation were not considered most distressing by many staff.

By contrast perseveration, interfering with others, pilfering/hoarding, manipulative behaviour, lack of self-care, inappropriate urinating, stripping, sleep problems or biting were not rated as most distressing by any staff. It would seem therefore that behaviours typically found distressing by staff are characterised by having an aggressive component, and tend to be directed towards others, or loud/disruptive. However it is also the case that a wide range of behaviours were chosen by staff indicating perception of behaviours differ widely across individuals.

A variety of reasons were given as to why these behaviours were distressing. The most common response was related to physical aggression, when staff were distressed by the threat of physical harm. Other common reasons for why behaviours were distressing were that they had an impact on other residents, or for example visiting relatives, and that staff actions would do nothing to settle the resident. These reasons were often associated with particular behaviours, therefore staff tended to find verbal aggression distressing as they were unable to help, or shouting and screaming out distressing as it was disturbing to other residents.

Bromley & Emerson (1995) had found staff working in residential settings with people with learning disabilities typically experienced emotions such as sadness, anger, fear and disgust in response to challenging behaviour of residents. Similar emotions were found in this study, with staff most commonly feeling upset or angry at resident

behaviour. Other common responses to challenging behaviour were feeling frustrated, distressed or disgusted. The majority of feelings elicited by distressing behaviour were negative. However, four staff reported feeling sympathetic towards residents when they behaved in a way which was distressing. Interestingly staff were likely to respond to physical aggression by feeling upset, rather than frightened, whereas residents screaming/crying out was found to be frustrating, and spitting tended to result in staff feeling angry.

Least distressing behaviours for staff included wandering, sleep problems, lack of occupation and motivation, shouting, and demanding attention. Many of these were “negative” behaviour, or behaviours which have a minimal impact upon the surrounding environment, in contrast to behaviours which were more disruptive and tended to be rated as most distressing by staff. However, the individual nature of staff perceptions is again underlined by for example shouting, which was rated as most distressing behaviour by five staff, but least distressing by six. Reasons for finding behaviours least distressing were usually that the behaviour was not harming others, that it gave staff an opportunity to help, or that it was due to dementia therefore not the residents deliberate action.

Overall therefore, a pattern emerged of behaviours which were aggressive in nature, were loud and disruptive, or had a detrimental effect on other residents or staff being found distressing by staff, and eliciting a wide range of negative emotional reactions. By contrast, if a behaviour did not have an impact on others, or if it could be seen as a symptom of dementia, it was less likely to cause distress in staff.

In addition, many staff cited the reason of being able to help the resident as a reason why a behaviour did not cause them distress, whereas being unable to help often resulted in a behaviour distressing staff. This suggests that being able to help a resident results in a sense of gratification, and this may act as a protective factor contributing towards psychological well-being in staff.

Staff Support

Several aspects of staff support have been found to have an impact on the psychological well-being of staff working in the “caring” professions, such as skills and workload (Bailey, 1985), provision of training (Gentry et al, 1972), and lack of managerial support (Bromley & Emerson, 1995). In a study investigating staff support for nurses, McGrath et al (1989) found organisational factors were more distressing for staff than resident related factors.

This study measured four aspects of staff support: role ambiguity, emotional/practical support, awareness of risk procedures and job satisfaction, together with overall staff support. Nursing home staff were found to experience less support than the dementia group participants, and in particular to have lower job satisfaction, and greater ambiguity about their role.

One explanation for this could be that support structures are more likely to be put in place in settings where it is considered likely that staff will have to deal with a variety

of challenging behaviours, ie where residents suffer from mental illness. These settings may also use a more psychological framework in planning services, and thus the psychological needs of staff would form part of this. If the emphasis of care provision is geared more towards providing for residents in terms of physical needs, psychological aspects of service provision may not be allocated the same degree of importance.

Interestingly staff support scores did not differ between nursing and unqualified staff, which is perhaps unexpected given their different job requirements and sources of support. What it does suggest is that support is a function of an organisation as a whole, and where support is low this will be reflected throughout the entire organisation. However it also suggests the same kinds of support will be found helpful by all staff, regardless of their particular role.

When completing the staff support questionnaire, the question which participants found most difficult to respond to was “how clear are you about how satisfied your superior is with what you do?” Many participants recorded a response of undecided or unclear, indicating staff often lack feedback about their performance at work.

Sources of support available to staff were typically help and support given by other staff, and staff meetings. Staff meetings were also suggested as most helpful in providing support, together with more support from higher management. In addition, many staff suggested further training would be helpful to them, together with clear

guidelines to follow with particular residents. Talking to other staff was a strategy most commonly used while at work to alleviate stress.

These findings suggest that an environment where communication between staff, and opportunities to express anxieties, are facilitated should be experienced by staff as more supportive than one in which discussion between staff members is minimal. This kind of environment is suggested by Kitwood (1997) as being of particular importance for staff working with people with dementia. He theorises an organisation which has open channels of communication, where staff feelings are openly discussed, and the hierarchy between differing levels of staff is not emphasised will facilitate care provision, and minimise the risk of staff burnout. This will then have a knock-on effect on the quality of care provided for residents - "there is a close connection between the personhood of clients and that of the staff; it is only a short-term expedient to ignore the latter issue." (Kitwood 1997, p116).

Psychological Well-Being in Staff

Staff working in the dementia settings were found to have a higher degree of psychological well-being than those working in the nursing homes, and this difference was almost significant. This finding was interesting given that previous research (eg MacPherson et al, 1994) had suggested psychological disturbance in staff may be related to behaviour such as aggression. Although the dementia staff group experienced significantly higher rates of both physical and verbal aggression, as well as other forms of challenging behaviour, this did not seem to be reflected in increased

psychological distress. Female staff were found to score significantly higher on the GHQ, but the proportion of men to women in the dementia and nursing home groups did not differ, indicating there was another factor accounting for the psychological well-being recorded of staff.

Findings from previous research had been conflicting. Thus Benjamin & Spector (1991) found resident-related factors resulted in stress in staff in two of the three settings they investigated, whereas Baillon et al (1996) found environmental/setting factors to be of equal importance to resident-related factors in predicting stress. Results from this study indicated poor psychological well-being in staff was strongly associated with poor perceived staff support, but not with the degree of challenging behaviour present in residents whom they were providing care for. There was no evidence that staff support acted as a moderating variable; instead it seemed staff support had an independent, linear relationship with psychological well-being.

However, these factors together did not explain a great deal of the variance in psychological well-being in staff, indicating that there are other factors which are important in predicting well-being in staff. It could be for example that staff working with residents with dementia have lower expectations for what they can achieve for residents, whereas staff working with nursing home residents may become frustrated when they are unable to help a resident as they would like. The cultural mix of staff may also be a relevant factor, for example as there may be different coping styles, or attitudes towards older adults, between different cultures.

Further Findings of the Study

No difference in the degree of physical dependency was found between the two groups, despite the fact that residents in the nursing homes were there primarily due to physical ill health. This may reflect a high rate of physical dependency in older adults with dementia. Another explanation may be that residents with dementia living within the community are likely to begin living in residential care when they become too physically frail for carers to manage at home, rather than because of the cognitive and behavioural aspects of dementia.

There was a difference in ethnic group between the dementia and nursing home groups, with a higher proportion of staff working with people with dementia coming from ethnic minority groups. This may reflect differing cultural attitudes to working with people with dementia, or social factors to do with the low status typically accorded to these jobs.

A further issue which came up frequently in discussion with staff was the death of residents, and in particular how this was communicated to staff. Many staff felt residents deaths were not acknowledged as distressing for staff, and they were often expected not to grieve. Staff gave examples of how they found out about the death of residents whom they had become close to, for example while serving up breakfast to other residents. This also raises the wider issue of how a residents death is dealt with with other residents in the home, particularly as this may raise a number of issues over their own death.

CRITICISMS OF METHODOLOGY

General Methodological Issues

Variables measured in this study were found to account for a relatively small amount of variance in GHQ score, and it is likely other factors such as events in staff lives outside work may have been having an influence on this. It would have been useful therefore to include some measure of this in the study, or of person-related factors such as coping style.

The results of the study suggest good staff support predicts better psychological well-being in staff. However, the relationship between the two variables could be the other way round, as people who are psychologically more healthy may rate their support at work as better.

Representativeness of the Homes

All EMI settings who were approached agreed to take part in the study. Of the five nursing homes approached, three agreed to take part, and two declined. This may have biased the results; for example low morale in these homes may have made them unwilling to take part. In addition homes varied in who they were funded by. The hospital ward was an NHS facility, and the remaining settings were run by a variety of private care agencies (places were block purchased by the NHS in all EMI settings). There may have been differences in for example facilities available, or staffing

levels between different homes. Thus although the study aimed to investigate challenging behaviour in older adults, the homes sampled in the study are unlikely to be fully representative of the range of residential settings available.

Representativeness of Participating Staff

In the EMI settings the percentage of staff sampled ranged from 67-75%. The percentage of nursing home staff sampled was more varied, for example 81% sampled in one home, whereas only 23% of staff were sampled in another. There was no known bias in sampling, and where the sample size was low this was usually due to time pressures on staff.

However it is possible that staff who did not take part may have had worse psychological well-being and this may have biased the results of the study. In addition the EMI staff sample was more representative than the nursing home sample in that a higher proportion took part. It is possible that given a more representative sample the finding that psychological well-being was worse in nursing home staff would have reached statistical significance.

Representativeness of the Residents Sampled

There may also have been a slight sampling bias in residents, as not all residents in each setting were rated. The proportion sampled ranged from 55-83% in the EMI settings, whereas in the nursing home settings it ranged from 22%-55%. When asked to choose

a resident to rate, staff typically chose the most challenging residents first. This was the case for both dementia and nursing home settings and thus for the nursing homes in particular the residents sampled are likely to reflect the more challenging end of the spectrum. A more representative sample would have been obtained if residents had been randomly selected for staff to rate.

Diagnosis of Dementia

In addition five residents rated in the nursing home settings did have dementia. This diagnosis was checked by reference to the resident's file kept at the nursing homes. This reflects the reality of the patient group in these settings, where there are likely to be some residents with dementia. Although this necessitated some analysis to be carried out according to presence/absence of dementia, it is unlikely to have had an effect on the remaining analyses as rates of challenging behaviour in the nursing homes was only slightly altered by including these residents.

Allocation of Responses to Categories

A number of staff responses were allocated to categories, for example why staff found particular behaviours distressing, or what kinds of support were found to be helpful by staff. The reliability of this categorisation system would have been increased had there been a second rater.

Difficulties with the Challenging Behaviour Scale

There were a number of difficulties with the challenging behaviour scale. No difference in the frequency of challenging behaviour, and how disruptive/difficult to manage staff found the behaviour was found. It is hard to know for sure how much of this was due to a lack of sensitivity in the measurement tool. However, the inclusion of both how disruptive and how difficult a behaviour was to manage in the same rating may have confounded these two factors - a behaviour may be disruptive simply due to the frequency with which it occurs, without necessarily being difficult to manage.

There were also difficulties with individual definitions of behaviour on the scale. For example many staff were confused over the meaning of “inappropriate urinating”, unsure whether this included incontinence. The researcher was present to answer these questions during this study, but the scale would be less reliable if for example used as part of a postal survey. It could also be argued that some items were not strictly behavioural in nature as they required a judgement of motivation, eg “manipulative behaviour”.

IMPLICATIONS FOR FUTURE RESEARCH

The results from this study suggest good staff support is positively related to good psychological well-being in staff. More detailed research could be carried out investigating whether implementing the kinds of support suggested by staff as helpful in this study has a direct impact on improving well-being in staff. Alternatively it may be that variance in GHQ score is largely accounted for by individual factors such as coping style: this could be investigated further, especially as this may have an impact on how staff support is perceived by individual staff.

The high levels of “negative” behaviours in residents, such as lack of occupation and lack of motivation, is also worth further investigation. Although these behaviours do not usually represent a management problem for residential homes, they may reflect boredom or low mood in residents, and aiming to involve residents in more activities or interaction with staff and other residents may improve the well-being of residents.

One of the main reasons challenging behaviours were found distressing by staff was the effect of the behaviour on other residents in the home. Clearly behaviours such as shouting and aggression are likely to be disturbing and upsetting to other residents, and future research could investigate the impact of challenging behaviours on residents. In addition it is likely, particularly in homes where residents have dementia, that the behaviour of one resident may lead to increased challenging behaviours in surrounding residents, as they become upset and seek to express their distress. Research could

therefore be carried out looking at early intervention to head off behaviour before it escalates and affects other residents.

There are likely to be a number of protective factors contributing to staff psychological well-being, and one of these may well be gratification of caregiving. Many staff found certain behaviours were not personally distressing as they provided an opportunity to be able to help the resident. The reverse was also true - many behaviours were distressing as staff felt frustrated at being unable to help. Future research could investigate the positive aspects of caregiving further, to provide a counterbalance to focusing on negative aspects.

Finally, further research could be carried out to investigate the impact of residents death upon both staff and other residents, as this was an issue mentioned spontaneously by many staff. Clearly staff working with older adults are likely to come across death on a regular basis, and there are a whole range of bereavement issues which are at present not often addressed.

CLINICAL IMPLICATIONS

Kitwood (1997) writes “thus far the improvements that have been made in dementia care have been far more concerned with the quality of life of the clients than with that of staff” (p109). The findings from this study indicate providing support for staff will increase their psychological well-being, and this would be expected to have a knock-on effect on the care given to residents. In particular staff experience a range of emotions

whilst at work, not only in response to resident behaviour, but also to other events such as the death of a resident. Any intervention would also need to build on the finding that staff find many aspect of caregiving rewarding.

The study also indicates there are a number of behaviours which are often found distressing by staff, and these include physical and verbal aggression, shouting, screaming and crying out. Training for staff could therefore be focused upon ways of dealing with these behaviours, and also on ways of helping residents express emotions through other means than behaviour.

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Appendix 1. Harrow Ethics Committee Confirmation

HARROW RESEARCH ETHICS COMMITTEE

(Chairman: Dr David Lubel)

Room 6BB 014

Northwick Park Hospital

Tel: 0181-869-2688

Fax: 0181-869-2174



NORTHWICK PARK & ST MARK'S
NHS TRUST
WATFORD ROAD HARROW
MIDDLESEX HA1 3UJ

1 September 1997

Ms Rosalind Cole
Clinical Psychologist in Training
Sub-dept of Clinical Health
4th Floor, Phillips House
1-19 Torrington Place
London WC1E 6BT

Dear Rosalind

Ethical Submission No 2336: Staff support for challenging behaviour in elderly dementia

The above project was approved by the Harrow Research Ethics Committee at its meeting on 1 September 1997. It would be appreciated if, in any future correspondence relating to this project or in any entry made in case-notes about procedures undertaken in the course of this study, you would refer to it as **EC 2174**.

~~Enclose the REC membership list, with those present at the meeting denoted by an asterisk.~~

The Committee wishes to remind all investigators of the importance of keeping General Practitioners informed of research work affecting their patients particularly when the patient's involvement continues after discharge from hospital.

Yours sincerely

Brian Saperia.
Secretary

Appendix 2. Hillingdon Ethics Committee Confirmation



HEALTH AUTHORITY

Kirk House 97-109 High Street
Yiewsley West Drayton Middlesex UB7 7HJ
Tel: 01895 452000 Fax: 01895 452108

Direct Line 01895 452005

30 March 1998

Ms Rosalind Cole
Clinical Psychologist in Training
Sub-department of Clinical Health
Phillips House (4th Floor)
1-19 Torrington Place
London WC1E 6BT

Dear Ms Cole

ETHICS COMMITTEE SUBMISSION 855

Effects of client challenging behaviour, and staff support, on stress in staff working with people with dementia

With reference to the above submission to the Hillingdon Local Research Ethics Committee, I am pleased to inform you that you have met the conditions set out by the Committee at their meeting held on Tuesday 5 August 1997. However, please note points 6 and 7 of my original letter dated Wednesday 6 August 1997, asking for a progress report and for the Committee to be kept informed of any changes to the study.

Yours sincerely

A handwritten signature in black ink, appearing to read "Joann Durrant". The signature is written in a cursive, flowing style with some loops and flourishes.

Joann Durrant
Secretary to the Hillingdon Local Research Ethics Committee

Appendix 3. UCL/UCLH Ethics Committee Confirmation



The University College London Hospitals

The Joint UCL/UCLH Committees on the Ethics of Human Research

Committee A Chairman: Dr F D Thompson

Please address all correspondence to:

Mrs Iwona Nowicka
Research & Development Directorate
9th Floor, St Martin's House
140 Tottenham Court Road, LONDON W1P 9LN
Tel. 0171- 380 9579 Fax 0171-380 9937
e-mail: inowicka@academic.uclh.nthames.nhs.uk

Dr L Glover
Clinical Psychologist
Sub-department of Clinical Health Psychology
4th floor, Philips House
1-19 Torrington Place

30 July 1997

Dear Dr Glover

Study No: 97/0255
Title: The effects of challenging behaviour, and staff support, on psychological well-being in staff working in residential settings with people with dementia

The Joint UCL/UCLH Committee on the Ethics of Human Research: Committee A considered your proposal at the meeting on the 24th July 1997 and approved the application.

Please note that it is important that you notify the Committee of any adverse events or changes (name of investigator etc) relating to this project. You should also notify the Committee on completion of the project, or indeed if the project is abandoned. **Please remember to quote the above number in any correspondence.**

Yours sincerely

Dr F D Thompson
Chairman

Appendix 4. Sample Information Sheet

INFORMATION SHEET - CONFIDENTIAL

Title of Study: The Effects of Challenging Behaviour, and Staff Support, on psychological well-being of staff working in residential settings with people with dementia.

Please read the following information carefully.

This study aims to look at certain behaviours which can occur in the elderly residential population. It also looks at staff well-being, and staff support. It is hoped that carrying out research in this area will enable clinical psychology input to be targeted effectively. Thus staff working in residential settings are being asked to complete several questionnaires. These should take between 15-30 minutes to do.

Any information collected during this research will be confidential, and no-one except the investigator will have access to the completed questionnaires. You do not have to take part in this study if you do not want to. If you decide to take part you may withdraw at any time without having to give a reason. In addition you may also be withdrawn from participation if at any time the investigator thinks it appropriate.

The study is being carried out as part of a doctoral qualification in clinical psychology, and is being supervised by a fully qualified clinical psychologist. All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by the Joint UCL/UCLH Committees on the Ethics of Human Research. The study is expected to continue until December 1997. Should you wish to contact the investigator during this time, please address correspondence to:

Rosalind Cole
Clinical Psychologist in Training
Sub-Department of Clinical Health Psychology
Phillips House
1-19 Torrington Place
London WC1E 6BT
Tel: 0171 380 7897

Please ask if you do not understand or would like more information. You are welcome to take some time to decide whether or not to participate in the study. If you decide to do so, please keep this information form for your reference.

On the facing page is a list of challenging behaviours that can be shown by older adults in residential or nursing settings.

A challenging behaviour is a behaviour which is of such intensity, frequency or duration that:

- a) the physical safety of the person or others is likely to be placed in serious jeopardy, or
- b) it is likely to seriously affect how the person participates in everyday community life.

Frequency Column (Freq).

For each behaviour listed mark down how often it is shown according to the following scale:

- 4: This person displays this behaviour **daily or more**
- 3: This person displays this behaviour **several times a week**
- 2: This person displays this behaviour **several times a month**
- 1: This person displays this behaviour **occasionally**
- 0: This behaviour is **never** displayed by this person

If a person does not show a behaviour PLEASE RATE FREQUENCY AS 0.

Difficulty to Manage Column (Diff).

Then for each behaviour shown mark down how difficult that behaviour is to cope with, when that person shows it, according to the following scale:

- 4: This problem causes a great deal of disruption and staff find it very difficult to cope with
- 3: This problem causes quite a lot of disruption and staff find it quite difficult to cope with
- 2: This problem causes some disruption but staff are normally able to cope with it satisfactorily.
- 1: This problem causes minimal or no disruption and staff can cope with it easily

If the person causes a range of difficulty with any one behaviour, mark down the score for the worst it has been over the last few weeks.

	Challenging Behaviour	Fr	Di
1	Physical Aggression (hits, kicks, scratches etc)		
2	Verbal Aggression (insults, swearing, threats etc)		
3	Self Harm (cuts/hits self, refuses food/starves self etc)		
4	Shouting		
5	Screaming / Crying out		
6	Perseveration (Constantly repeating speech or action, repetitive questioning or singing, etc)		
7	Wandering (walks aimlessly around home)		
8	Restlessness (fidgets, unable to settle down, etc)		
9	Lack of Motivation (difficult to engage, shows no interest in activities, apathy etc)		
10	Clinging (follows/holds on to other residents/staff)		
11	Interfering with other people		
12	Pilfering or Hoarding (possessions, rubbish, paper etc)		
13	Suspiciousness (accusing others etc)		
14	Manipulative (takes advantage of others/staff etc)		
15	Lack of self care (hygiene problems, dishevelled)		
16	Spitting		
17	Faecal Smearing		
18	Inappropriate Urinating (in public, not in toilet)		
19	Stripping (removes clothes inappropriately, flashes, etc)		
20	Inappropriate Sexual Behaviour (masturbates in public, makes inappropriate advances to others etc)		
21	Sleep problems (waking in night, insomnia, etc)		
22	Non-compliance (deliberately ignores staff requests, etc)		
23	Dangerous Behaviour (causes fires or floods, etc)		
24	Demands Attention		
25	Lack of Occupation (sits around doing nothing etc)		
26	Pinching		
27	Biting		
28	Racial Abuse		

SECTION 3

Please think in general about working with older adults.

Which of the 28 behaviours listed in the checklist which you have come across do you personally find most emotionally distressing?

Most distressing behaviour:

Why do you find this behaviour particularly distressing?

How does it make you feel when someone behaves in this way?

Which behaviour out of the 28 do you find least distressing?

Least distressing behaviour: _____

Why is this less distressing?

SECTION 4

STAFF SUPPORT QUESTIONNAIRE - Harris & Thomson (1993).

All workers need support whatever their work situation. The purpose of this questionnaire is to find out what support you receive, how satisfied you are with this and what support you would like to receive.

Please read these instructions carefully before completing.

Please answer the questions on your own before you talk to other staff about it.

The answers you give will be treated as strictly confidential, and will be compiled with other questionnaires from residential homes to give an overall view of staff support needs.

Remember there are no right or wrong answers - give your opinion about your support needs.

Please describe in detail the present sources of staff support at your place of work

How satisfied are you with this? (circle the appropriate number)

- | | |
|-------------------|---|
| Very satisfied | 1 |
| Satisfied | 2 |
| Undecided | 3 |
| Dissatisfied | 4 |
| Very dissatisfied | 5 |

Please describe the sort of support you would like to receive at work.

Please describe a way of alleviating stress in your job.

**The following questions are about how you see your job.
Please circle the appropriate number.**

1. How clear are you about the main objectives you should be working towards in your job?

Very clear	1
Clear	2
Undecided	3
Unclear	4
Very unclear	5

2. How clear are you about what your superior expects from you?

Very clear	1
Clear	2
Undecided	3
Unclear	4
Very unclear	5

3. How clear are you about the limits of your authority and responsibility in your present position?

Very clear	1
Clear	2
Undecided	3
Unclear	4
Very unclear	5

4. How clear are you about how satisfied your superior is with what you do?

Very clear	1
Clear	2
Undecided	3
Unclear	4
Very Unclear	5

Risk-taking.

Please circle the appropriate number.

Have risk situations been clearly identified at your place of work?

Yes 1 No 2 Don't know 3

If yes, were you involved in identifying the risks?

Yes 1 No 2

Have clear guide-lines been established about what to do if something goes wrong?

Yes 1 No 2 Don't know 3

If yes, do you agree with the guidelines?

Yes 1 No 2

Please indicate how much you agree or disagree with the following statements by circling the appropriate number.

I am satisfied with my present situation at work.

Agree 1 Disagree 2 Undecided 3

I am satisfied with my present level of involvement in decision making at work

Agree 1 Disagree 2 Undecided 3

I am satisfied with the degree of support I receive in my job.

Agree 1 Disagree 2 Undecided 3

I often think about finding another job.

Agree 1 Disagree 2 Undecided 3

Please write any other comments below.

THE GENERAL HEALTH QUESTIONNAIRE

GHQ 28 - David Goldberg

Please read this carefully.

We should like to know if you have had any medical complaints and how your health has been in general, *over the past few weeks*. Please answer ALL the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you have had in the past.

It is important that you try to answer ALL the questions. Thank-you very much for your co-operation.

Have you recently

A1-	been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2-	been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3-	been feeling rundown and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4-	felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5-	been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6-	been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7-	been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual

B1-	lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2-	had difficulty in staying asleep?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3-	felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4-	been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5-	been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6-	found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7-	been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
C1-	been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2-	been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3-	felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4-	been satisfied with the way you've carried out your task?	More satisfied	About the same as usual	Less satisfied than usual	Much less satisfied
C5-	felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
C6-	felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7-	been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

D1-	been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
D2-	felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3-	felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4-	thought of the possibility you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
D5-	found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6-	found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7-	found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

A _____ B _____ C _____ D _____

Total _____

