### What is already known on this topic

Frequent attenders in all medical settings account for a disproportionate amount of healthcare resources

In primary care, frequent attenders commonly present with symptoms that remain medically unexplained

#### What this study adds

Medically unexplained symptoms are also common among frequent attenders in secondary care and present in most specialties

Symptoms that are particularly likely to remain unexplained in this group include gastrointestinal complaints, back pain, and headache

from the perspective of both the patient and the physician.13 Also, patients may undergo extensive investigation and medical treatment, which may not only be inappropriate but also hazardous.<sup>14</sup> Iatrogenic factors such as inappropriate information, overinvestigation, and overtreatment are common in the management of these patients.<sup>15</sup> Avoidance of these factors forms the mainstay of most advice on management.<sup>17</sup> We have shown that medically unexplained symptoms account for a considerable proportion of presentations in frequent attenders in secondary care and conclude that these patients should be considered a focus for attention.

We thank all of the NHS trusts who agreed to participate in this study and in particular the medical records staff who assisted in retrieval of case notes. We also thank Dr R Hooper for providing statistical advice and helpful comments on the paper.

Contributors: All authors were involved in the planning and design of the study. SR collated and analysed the data and was the principal writer of the paper. SW helped in interpretation of the data and writing of the paper. TC took part in the study design. MH participated in the analysis and interpretation of data and writing of the paper. SR, TC, and MH are guarantors.

Funding: NHS Executive National Research and Development Programme.

Competing interests: None declared.

- Zook CJ, Moore FD. High-cost users of medical care. N Engl J Med
- Garfinkel SA, Riley GF, Iannacchinoe VG. High-cost users of medical care. *Health Care Financing Review* 1988;9:41-52.

  Wamoscher Z. The returning patient: a survey of patients with high
- attendance rate. J Coll Gen Prad 1966;11:166-73.

  Kroenke K, Mangelsdorff AD. Common symptoms in ambulatory care: incidence, evaluation, therapy, and outcome. Am J Med 1989;86:262-6.
- Bass C, Bond A, Gill D, Sharpe M. Frequent attenders without organic
- disease in a gastroenterology clinic. *Gen Hosp Psychiatry* 1999;21:30-8. Fink P. The use of hospitalizations by persistent somatizing patients. *Psychiatry* 1999;21:30-8. chol Med 1992:22:173-80.
- Reid S, Crayford T, Richards S, Nimnuan C, Hotopf M. Recognition of medically unexplained symptoms-do doctors agree? J Psychosom Res
- Hotopf M, Mayou R, Wadsworth M, Wessely S. Childhood risk factors for adults with medically unexplained symptoms: results from a national birth cohort study. Am J Psychiatry 1999;156:1796-800.
- Smith GR Jr, Monson RA, Ray DC. Patients with multiple unexplained symptoms: their characteristics, functional health and health care utilization. Arch Intern Med 1986;146:69-72.
- 10 Katon W, Lin E, von Korff M, Russo J, Lipscomb P, Bush T. Somatization: a spectrum of severity. Am J Psychiatry 1991;148:34-40.
- 11 Escobar JI, Burman MA, Karno M, Forsythe A, Golding JM. Somatization in the community. Arch Gen Psychiatry 1987;44:713-8.
- 12 Wells KB, Stewart A, Hays RD, Burman A, Rogers W, Daniels M, et al. The functioning and well-being of depressed patients: results from the medi-cal outcomes study. *JAMA* 1989;262:914-9. 13 Lin EHB, Katon W, von Korff M, Bush T, Lipscomb P, Russo J, et al. Frus-
- trating patients: physician and patient perspectives among distressed high users of medical services. *J Gen Intern Med* 1991;6:241-6.
- 14 Fink P. Surgery and medical treatment in persistent somatizing patients.
- J Psychosom Res 1992;36:439-47.

  15 Kouyanou K, Pither C, Wessely S. Iatrogenic factors and chronic pain. Psychosom Med 1997;59:597-604.
- 16 Kouyanou K, Pither CE, Rabe-Hesketh S, Wessely S. A comparative study of iatrogenesis, medication abuse, and psychiatric morbidity in chronic pain patients with and without medically unexplained symptoms. Pain
- 17 Wilkie A, Wessely S. Patients with medically unexplained symptoms. Br J Hosp Med 1994;51:421-7.

(Accepted 21 December 2000)

# Longitudinal comparison of depression, coping, and turnover among NHS and private sector staff caring for people with dementia

M Margallo-Lana, K Reichelt, P Hayes, L Lee, J Fossey, J O'Brien, C Ballard

Relatives caring for people with dementia show high levels of psychological distress and depression.1 However, the psychological health of staff in private and NHS care facilities for people with dementia has not been evaluated. Staff turnover is often high in these facilities, and mental health could be a contributory factor.

Active coping strategies reduce depression and psychological distress in family caregivers,2 and the same could be true for professional carers. We compared the prevalence of psychological distress among professional staff in private sector and NHS facilities and assessed the relation with coping strategies and rates of staff turnover.

# Participants, methods, and results

We measured emotional wellbeing (28 item general health questionnaire) and the use of positive coping strategies (active coping, planning, seeking social support, positive reinterpretation, and acceptance-COPE<sup>3</sup>) in the care staff of private sector residential or nursing homes and NHS continuing care facilities. All nine private facilities with over 30 residents within two catchment areas and all four NHS facilities were asked to participate. Questionnaire data were discounted from one facility in each category because of the poor return rate (<25%), although the staff turnover was calculated in all 12. We compared results using the  $\chi^2$ 

Bensham Hospital, Gateshead, Tyne and Wear NE8 4YL M Margallo-Lana specialist registrar in old age psychiatry

continued over

BMJ 2001;322:769-70

Prevalence of stress among staff in private and NHS residential homes and stress coping mechanisms

	Private homes			NHS homes			and NHS facilities		
	Care assistant* (n=140)	Nurse (n=21)	P value †	Care assistant (n=37)	Nurse (n=27)	P value†	Private (n=161)	NHS (n=64)	P value‡
No (%, 95% CI) with	general health questi	onnaire score:							
≥5	31 (22%, 15% to 29%)	4 (19%, 3% to 38%)	1.0	7 (19%, 7% to 31%)	3 (11%, 0% to 23%)	0.5	35 (22%, 19% to 25%)	10 (16%, 7% to 25%)	0.3 (χ²=1.7, df=1)
<5	109 (78%, 71% to 85%)	17 (81%, 65% to 97%)		30 (81%, 69% to 93%)	24 (89%, 77% to 100%)		126 (78%, 75% to 81%)	54 (84%, 75% to 93%)	
Staff turnover§	_	_	_	_	_	_	75 (38%, 31% to 45%)	19 (16%, 9% to 23%)	<0.0001 (χ²=16.4, df=1)
Median (range) score	for coping mechanis	ms:							
Active coping	11 (4-16)	21 (4-16)	0.2	12 (6-16)	13 (7-16)	0.03	11 (4-16)	12 (6-16)	0.008
Planning	11 (2-16)	10 (4-16)	0.2	11 (6-16)	13 (7-16)	0.01	11 (2-16)	12 (6-16)	0.011
Seeking support	12 (3-16)	12 (4-16)	0.8	11 (6-16)	12 (4-15)	0.8	12 (3-16)	11 (4-16)	0.5
Reinterpretation	11 (2-16)	11 (4-16)	0.02	11 (6-16)	13 (8-16)	0.1	11 (2-16)	12 (6-16)	0.03
Acceptance	11 (4-16)	11 (3-16)	0.7	10 (5-16)	12 (9-16)	<0.001	11 (3-16)	12 (5-16)	0.14

<sup>\*</sup>Care assistants and senior care assistants. †Fisher's exact test for general health questionnaire analyses and Mann-Whitney U test for coping mechanism scores.  $\pm \chi^2$ test for general health questionnaire and turnover; Mann-Whitney U test for coping mechanism scores.

Because some of the demographic variables could overlap with those pertaining to coping and psychological distress we carried out logistic regression analyses (with NHS  $\nu$  private facilities as the dependent variable and age, sex, general health questionnaire score, active coping, planning, seeking support, reinterpretation, and acceptance as the independent variables) for nursing staff (seeking support Wald 6.3, P=0.001 and planning Wald 3.3 P=0.07 entered into the equation but not general health questionnaire) and care assistants separately (none of the variables entered into the equation).

Institute for the Health of the Elderly, Wolfson Research Centre, Newcastle General Hospital, Newcastle upon Tyne NE4 6BE K Reichelt assistant psychologist

J O'Brien professor of old age psychiatry

Neurorehabilitation and Elderly Programme, Newcastle General Hospital P Hayes assistant general manager

Dene Lodge Nursing Home, Denton Burn, Newcastle upon Tyne NE15 7SX L Lee home manager

Fulbrook Centre, Churchill Hospital, Oxford OX3 7LJ J Fossey consultant clinical psychologist

MRC Neurochemical Pathology Unit, Newcastle General Hospital C Ballard professor of old age psychiatry

Correspondence to: C Ballard c.g.ballard@ncl.ac.uk test and the Mann-Whitney U test. All data were analysed with SPSS (version 9).

A total of 225 staff completed all of the assessments (161/176 (91%) from private facilities and 64/89 (72%) from NHS facilities). There were 48 nurses (27 from NHS, 21 from private homes) and 177 care assistants or senior care assistants (37 from NHS, 140 from private homes).

Forty five (20%) respondents scored  $\geq 5$  on the general health questionnaire (the cut off point for caseness), 35 (22%) from private facilities and 10 (16%) from the NHS ( $\chi^2=1.7$ , df = 1, P=0.30). The table gives further details. Staff scoring below 5 on the general health questionnaire were more likely to use positive coping strategies (active coping, Z=2.1, P=0.03). Nurses used active coping (Z=2.6, P=0.008) and planning (Z=2.5, P=0.011) more than the care assistants, although the differences were not significant for private staff (table).

Seventy five (38%) staff in private facilities and 19 (16%) in NHS homes had left in the 12 months before the assessment ( $\chi^2 = 16.4$ , df = 1, P < 0.0001). There was no relation between staff turnover and the mean general health questionnaire score (Spearman's r = 0.21, P = 0.52).

## Comment

We found psychological distress in about 20% of professionals caring for people with dementia in private and NHS facilities. This level is low compared with reported frequencies of 50% in other healthcare workers<sup>4</sup> and relatives caring for people with dementia. Levels of stress in NHS homes were lower than in private facilities (16% v 22%), although the difference was not significant. The study did not have sufficient statistical power to detect a significant difference of this magnitude. Our study confirms previous reports that positive coping strategies protect against psychological distress and indicates that nurses are more likely to use positive coping strategies than care assistants, particularly in NHS settings. This empha-

sises the potentially important role of nursing staff in developing such skills in care homes.

Overall comparison of private

The assumption that stress is an important factor in the high turnover of professional carers seems to be unfounded. Although staff turnover was high, particularly in the private sector, it was unrelated to the level of psychological distress within individual facilities. Possible explanations for the high turnover include the poor wages and poor career structure. The lower staff turnover rates in the NHS facilities were perhaps because staff had a better sense of "community" as they were part of a larger organisation. Promotion of better links between the NHS and private sector could increase stability and allow efficient delivery of training programmes and the development of mutually supportive staff groups.

Contributors: MM-L collected a large proportion of the data, completed the initial data analysis, and had a leading role in writing the manuscript. KR and PH helped with data collection, set up the study data base, and contributed to writing the manuscript, LL helped plan the study, contributed to data collection, and contributed to writing the manuscript.JF, JO'B, and CB took the lead in devising the original study design, recruiting study staff, and obtaining ethical approval, and all contributed to the writing of the manuscript. CB and JF trained staff; CB also supervised study staff and was responsible for the final version of the manuscript. CB will act as guarantor.

Funding: CB's salary was paid by the Medical Research Council.

Competing interests: None declared.

- Schulz PV, Williamson GM. A 2 years longitudinal study of depression amongst Alzheimer caregivers. *Psychol Ageing* 1991;6:569-78.
- Saad K, Hartman J, Ballard C, Kurian M, Graham C. Coping by the carers of dementia sufferers. Age Ageing 1995;24:495-8.
   Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: a
- 3 Carver CS, Scheier MF, Weintraub JK. Assessing coping strategies: a theoretically based approach. J Pers Soc Psychol 1989;56:267-83.
- 4 Caplan RP. Stress, anxiety, and depression in hospital consultants, general practitioners and senior health service managers. BMJ 1994;309:1261-3. (Accepted 22 November 2000)

# Endpiece

#### Life

There is no wealth but life.

John Ruskin

<sup>§</sup>Staff turnover rate was calculated by using all staff (198 for private homes and 117 for NHS homes) not just those who completed questionnaires.