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STRESS, BURNOUT, COPING AND STRESS MANAGEMENT IN
PSYCHIATRISTS: FINDINGS FROM A SYSTEMATIC REVIEW

ANNE FOTHERGILL, DEBORAH EDWARDS & PHILIP BURNARD

ABSTRACT

Background: Research into stress among psychiatrists has attempted to identify stressors, which can lead to physical illness and psychological distress.

Aims: The aim of the study was systematically to review the current evidence for the effectiveness of stress management interventions for those working in the psychiatric profession.

Method: A systematic review of the current literature was conducted into stress and stress management within the profession of psychiatry.

Results: Twenty-three international studies were included in the psychiatry section of the review. Psychiatrists report a range of stressors in their work, including stress associated with their work and personal stresses. One personal stress, which psychiatrists find very difficult to cope with is patient suicide. Coping strategies include support from colleagues and outside interests. No studies evaluated the use of stress-management interventions for psychiatrists.

Conclusions: Psychiatry is a stressful profession. Psychiatrists identified several stressors in their professional and personal lives.

INTRODUCTION

Psychiatrists as a professional group are prone to stress, burnout and suicide (Thomsen *et al.*, 1999). Studies in Europe, the United Kingdom (UK) and United States of America (USA) have been conducted over the last few decades to identify stressors specific to the psychiatric profession. Holloway *et al.* (2000) in a review of the literature cited several studies, which have identified stressors, stress outcomes and support systems used by psychiatrists who are probably the key members of the multidisciplinary team. Margison (1987, ch. 6) also gives a comprehensive review of stress in psychiatrists. He identified specific stressors, which affect psychiatrists in training including overwork, relationships with other staff, inadequate resources and organisation, threats to self-esteem and personal threats, for example dealing with violent patients. Consultant psychiatrists experience different stressors including the 'buck stopping here' when things go wrong, a sense of personal isolation within their professional role and obtaining resources from an ever-diminishing pool.

To evaluate the current evidence on stress management interventions and their effectiveness in reducing stress, a systematic review of the literature pertaining to all professional

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groups working in the mental health field was conducted. The review also aimed to identify stressors, moderators and stress outcomes particular to each professional group. In this paper we report on findings from the professional group psychiatrists. The other professional groups included in this review were:

- clinical psychologists;
- psychiatric/mental health nurses;
- social workers;
- occupational therapists;
- mental health professionals.

MODEL OF STRESS

The review was based on the stress model developed by Carson and Kuipers (1998). The model proposes three levels of the stress process. The first level of the stress process suggests that there are stressors, which come from external sources. These include specific occupational stressors, everyday 'hassles' or 'uplifts', which can be cumulative and the stress associated with major life events.

The second level of the stress process are the 'moderators'. Carson and Kuipers (1998) identified several factors, which can buffer against the negative effects of stress on individuals. These are high levels of self-esteem, good social support networks, hardiness and good coping skills, mastery and personal control, emotional stability and good physiological release mechanisms.

The final level of the stress model is the stress outcomes. Outcomes of stress can be both positive and negative. Positive outcomes include mental and physical well being and high levels of job satisfaction. Negative outcomes include ill health, burnout and low job satisfaction.

METHOD

The systematic review was conducted over a one-year period, and was completed June 2002. The study was based on the University of York's guidelines for conducting systematic reviews (University of York NHS Centre for Reviews and Dissemination, 2001). This review was conducted in two parts. The first part focused on stressors, moderators and stress outcomes and included papers on stress, burnout and job satisfaction. The second part of the review retrieved papers that evaluated stress management interventions. Studies included were research articles dating from 1966 to 2000 undertaken in the UK that specifically identified participants as psychiatrists. Studies from other European countries and from the USA were examined as potential models of good practice.

SEARCH STRATEGY

The development of the search strategy involved searching various databases to gauge the extent of the literature on stress, burnout, coping and job satisfaction and stress management. Key English language and European language journals were identified through electronically searching PUBMED and Embase (Excerpta Medic Online). Further searching was undertaken to ensure a comprehensive review of the literature including SCI search (the Science Citation Index), SSCI Search (the Social Science Citation Index) and Pascal (the Science, Technology and Medicine index). Specialist databases were also searched. These were:

- CINAHL (nursing and allied health);
- ASSIA (social science);
- PsychLit (psychology, including clinical psychology);
- Clin Psych;
- Heathstar;
- Cochrane.

The search strategy used Medical Subject Headings (MeSH) terms combined with key words and text searches. These were:

The MeSH search terms

- Psychiatrists (CINAHL).
- Psychiatry (CINAHL).
- Mental health personnel (PsychLit, Clin Psych).
- Mental health service (EMBASE, CINAHL).
- Community mental health (EMBASE).

The key words

- Stress.
- Burnout.
- Coping.
- Job satisfaction.
- Stress management.

The text words

- Psychiatrist.
- Mental health professional.
- Mental health staff.

To locate unpublished articles, conference proceedings, university theses and commissioned reports a search was conducted on the electronic database SIGLE (System for Information on Grey Literature). The National Research Register was searched for current research.

After completing the electronic searches, the search was drawn to a conclusion by several stages of follow-up to identify any further relevant articles. This was undertaken by checking

reference lists of selected articles and reviews, by hand searching key journals and by writing to key authors. Hand searching of relevant journals was also conducted; these included *International Journal of Social Psychiatry*, *Stress Medicine*, *Social Psychiatry and Psychiatric Epidemiology*.

RESULTS OF THE SEARCH

A total of 65 articles deemed potentially relevant to the review were found and all of them were obtained in hard copy.

INCLUSION CRITERIA

The articles were further evaluated for their relevance to the review using the following inclusion criteria: English language publication; relates to the profession psychiatry; primary research papers; and measures stressors/moderators/stress outcomes. Two reviewers independently read and assessed each paper. Where there were differences the article was re-read and re-assessed. Reasons for excluding papers from the review are summarised in Table 1.

A preliminary review of the literature found that there was little qualitative research conducted in this area probably because most research uses quantitative tools to measure levels of stress and burnout. Qualitative papers and commentaries are important to include in systematic reviews but to date there are no appraisal tools available to evaluate non-experimental research. The Cochrane collaboration is currently developing a tool for this purpose. The inclusion of qualitative papers was outside the scope of the authors' review.

RESULTS

Twenty-three articles were included in the psychiatry section of the final review. There are few adequate studies reporting sources of stressors, moderators and stress outcomes for psychiatrists working within the UK. The majority of studies have been carried out in the USA and Canada.

Table 1
Papers excluded from the review

Exclusion criteria	Psychiatrists
Foreign	9
Other professional group	14
Not research	11
Insufficient data	0
Outcome measures	8
Duplicate publication	0
Total	42

STRESSORS

Levels of stress found among old age psychiatrists in the UK were described as moderate and normal for a busy professional (Benbow & Jolley, 1999). Benbow and Jolley (1997) also found that the client group was not a factor in how stressed psychiatrists are. Old age psychiatrists did not mention that working with elderly clients was stressful. One reason for this might be that they had chosen to work in this area of psychiatric speciality. Old age psychiatrists who spent longer on acute wards were most likely to feel stressed (Benbow & Jolley, 1997). There were gender differences with male psychiatrists finding time spent travelling and following up clients in the community more stressful, while female psychiatrists were more stressed by longer total working hours, seeing relatives, ward consultations and commitment to hospital-based outpatient clinics (Benbow & Jolley, 1999).

Frequently cited sources of stress for American psychiatrists were negative characteristics of patients and their relatives, administrative and organisational shortcomings, resource deficiencies, staff performance and staff conflicts (Dawkins *et al.*, 1984).

The sources of stress for psychiatric administrators in the USA included professional identity (no time for family, teaching, clinical, research isolated), job-related (restricted ability regarding hiring and firing of staff, scarce resources, lack of feedback) and scrutiny stress (paperwork, rumour) (Sherwood & Greenblatt, 1987).

Other sources of stress experienced by American psychiatrists resulted from lack of positive feedback, frequent supervisory duties, long hours of work, too much work and a poor working environment (Dallender *et al.*, 1999). Clark and Vaccaro (1987) identified lack of administrative support and low pay as important factors contributing to stress levels in psychiatrists in the UK.

Patient suicide is a major stressor for many psychiatrists. Chemtob *et al.* (1998) studied the frequency and impact of patients' suicide on American psychiatrists' personal and professional lives. Stress levels as measured on the Impact of Event Scale were high and equivalent to levels found in people suffering the loss of a parent. The majority of the psychiatrists (57%) reported experiencing post-traumatic stress symptoms. Younger psychiatrists were more affected by a patient suicide than their older more experienced colleagues (Chemtob *et al.*, 1998). Using the same scale Cryan *et al.* (1995) found that there were no differences in the impact of a patient suicide among medical students and qualified psychiatrists in the UK. The majority of participants did not report patient suicide had brought a definite or major impact on their professional practice.

Another study conducted in the UK found that junior psychiatrists had more psychological distress, work-related stress and symptoms of burnout than the consultants did. The causes were not identified in this study although non-work-related stress such as bereavement was a contributing factor to increased stress in psychiatrists, which might affect their work performance (Guthrie *et al.*, 1999). The transitional period from leaving training to career is a stressful time; the stressors during this period are difficulty with patients, examination worries, marital stress and physical illness (Looney *et al.*, 1980).

MODERATORS

Coping mechanisms effectively adopted to deal with the stress include support from partner, recreational activities, relationships with colleagues/peers and holidays (Looney *et al.*, 1980). The most important coping mechanisms for psychiatrists in the UK were the support of a loved one and from colleagues (Dallender *et al.*, 1999). This strategy was used by psychiatrists to help them deal with a patient's suicide (Chemtob *et al.*, 1998). Support with work-related problems was a key factor in experiencing lower work-related exhaustion and higher mental energy for psychiatrists in Sweden and the UK (Thomsen *et al.*, 1998).

When compared to mental health nurses, psychiatrists were more likely to adopt a 'passive' coping strategy of 'keeping the problem to themselves' (Dallender *et al.*, 1999). However another study reported no differences in use of active coping strategies between the two groups (Thomsen *et al.*, 1999).

Predictors of a healthy workplace for both Swedish and English psychiatrists included high self-esteem, manageable workload, positive views about organisational leaders, low emotional exhaustion and active participation in the organisation (Thomsen *et al.*, 1998).

STRESS OUTCOMES – BURNOUT

A number of studies conducted in the UK, USA and Europe have reported on levels of burnout among psychiatrists. Factors which contribute to feelings of dissatisfaction and burnout are lack of administrative support and validation, low pay, responsibility without corresponding authority, too much paperwork, too much bureaucracy (Clark & Vaccaro, 1987), decreasing involvement in providing psychotherapy (Kalman & Goldstein, 1998) and personality (Naisberg-Fennig *et al.*, 1991).

Personality was an important factor when predicting how prone a psychiatrist was to burnout (Naisberg-Fennig *et al.*, 1991; Deary *et al.*, 1996a). A study conducted by Naisberg-Fennig *et al.* (1991) raised the controversial question should screening be implemented to screen out doctors with 'vulnerable' personalities (i.e. neurotic personality types) before they enter the psychiatric speciality.

Thomsen *et al.* (1998) found that psychiatrists with low self-esteem were prone to burnout. A study by Snibbe *et al.* (1989) found that psychiatrists were more likely to suffer from depersonalisation than psychologists.

When compared with mental health nurses, psychiatrists experienced greater workload, better possibilities for personal development and experienced more work-related exhaustion (Thomsen *et al.*, 1999). Organisational characteristics were found to be more important than individual characteristics in predicting exhaustion and professional fulfilment for psychiatrists and mental health nurses (Thomsen *et al.*, 1999).

Factors associated with increased emotional exhaustion were being male and working 12-hour shifts (Hiscott & Connop, 1989, 1990) and clinical supervision and leadership style (Webster & Hackett, 1999). Spending over 50% of time in direct client contact is associated with increased depersonalisation (Savicki & Cooley, 1987). Factors associated with a lower sense of personal accomplishment were working in wards/departments with difficult patients,

being male with a heavy workload (Hiscott & Connop, 1989, 1990) and having a high percentage of people suffering with schizophrenia in the population (Pines & Maslach, 1978).

STRESS OUTCOMES: JOB SATISFACTION

Psychiatrists working in the private practice in the USA reported lower levels of job satisfaction than expected (Kalman & Goldstein, 1998). The majority of psychiatrists across all settings report being satisfied or very satisfied with their work (Leehey & Misiaszek, 1985; Kazarian *et al.*, 1995).

Psychiatrists in Germany perceived more autonomy in their work and were more satisfied when they actively participated in decisions, received and gave feedback on work performance (peer review) and worked in organisations where management used supportive communication practices (Schulz & Schulz, 1988).

Psychiatrists working within community mental health centres were most satisfied about their opportunity to do things for others. They were also generally satisfied with being able to keep busy, the amount of job security they have, the chance to work alone and the degree to which they used their abilities and felt a sense of accomplishment (Baker *et al.*, 1997).

Factors which contributed to job satisfaction are having a variety of tasks and challenges, being valued, having support in their role, being in charge of the entire centre's operations, being affiliated with an academic centre or the medical community (Clark & Vaccaro, 1987). Other factors were being female with children (Goldstein *et al.*, 1981) and research-driven policies (Kazarian *et al.*, 1995).

STRESS OUTCOMES: PSYCHOLOGICAL DISTURBANCE

High levels of psychological distress have been reported with about 25% of psychiatrists in the UK scoring above the threshold for vulnerability to psychiatric morbidity (Guthrie *et al.*, 1999). Psychiatric caseness was also found to be high in psychiatrists in England and Sweden (Thomsen *et al.*, 1998). The highest suicidal tendencies among male physicians occur in psychiatrists (Olkinuora *et al.*, 1992).

STRESS MANAGEMENT INTERVENTIONS

No studies on stress management interventions that had been specifically conducted with psychiatrists were located in the review. Three intervention studies were identified whose samples were referred to as mental health professionals. These established that levels of burnout did not change for mental health workers who attended staff development workshops. However staff that attended the workshop accompanied by a period of sustained consultation experienced significantly lower levels of emotional exhaustion (Hunnicuttt & MacMillan, 1983). Female mental health workers at risk of burnout experienced significantly lower emotional exhaustion and depersonalisation after they participated in an intensive stress reduction

programme in the form of weekend conferences and follow-up support groups (Mehr *et al.*, 1995). Following a period of interdisciplinary education mental health workers experienced increasing satisfaction with continuing education opportunities and with the number of peers available for professional interaction (Bhatara *et al.*, 1996).

DISCUSSION

Most of the literature on stress and stress management has been conducted outside of the UK. Evidence from the papers reviewed suggests that psychiatrists experience significant levels of stress. Specific stressors include overwork, management and resource issues, personal stresses, lack of time, organisational changes, lack of administrative support and low pay.

Significant factors leading to psychiatrists becoming prone to burnout were gender (Benbow & Jolley, 1997), age (Guthrie *et al.*, 1999) and personality type (Naisberg-Fennig *et al.*, 1991). A number of studies have noted that female psychiatrists experience more stressors than male psychiatrists. The causes of stress are also different. Women are less satisfied with pay, rewards, training, current employment and autonomy (Goldstein *et al.*, 1981). Job satisfaction is reduced for women psychiatrists when they are simultaneously combining the demands of work with having children. Role conflict is one explanation given for this (Goldstein *et al.*, 1981). Junior psychiatrists have been found to experience significantly more work-related stress than their more experienced counterparts (Guthrie *et al.*, 1999).

The majority of psychiatrists will experience a patient suicide at some time in their career. Patient suicide is an occupational hazard for psychiatrists. The personal stress brought on by this event is significant. Psychiatrists' experience feelings of anger and guilt, loss of self-esteem and have intrusive thoughts of suicide (Chemtob *et al.*, 1998) and reduced performance. Cryan *et al.* (1995) reported that the personal stress of a patient suicide among Irish psychiatrists was significant but lower than that reported in Chemtob *et al.*'s study of American psychiatrists. Training to deal with suicide is seen as a stress management strategy and is recommended by Cryan *et al.* (1995) and Chemtob *et al.* (1998).

Even with the high levels of distress reported psychiatrists have high levels of job satisfaction. Being valued, variety of tasks and having support in their role were some factors, which contributed to job satisfaction (Clark & Vaccaro, 1987). Job satisfaction is not seen as enough to reduce the level of strain felt by psychiatrists (Dallender *et al.*, 1999). One reason for this might be that psychiatrists when faced with 'too much work' implemented a 'passive' coping strategy, that is 'they keep the problem to themselves' (Dallender *et al.*, 1999).

When compared with physicians from other specialities psychiatrists report significantly more stress as a result of organisational constraints, fewer clinical demands and experienced more emotional exhaustion as a result of work and more severe depression (Deary *et al.*, 1996b).

The studies included in this review of psychiatrists reported on stressors and coping strategies to deal with working in a challenging and demanding profession. None of the studies evaluated the effectiveness of specific stress management techniques. There are, however, a number of techniques reported in the literature, which mental health workers have found helpful. These include relaxation training (Watson, 1986; Peacock, 1991), organisational problem solving (Peacock, 1991), staff support groups (Peacock, 1991), confidential counselling

(Peacock, 1991) and staff sensitivity sessions (Peacock, 1991). Other stress management activities include in-service training in behavioural therapy (Milne *et al.*, 1986); creative accommodation (Gordon & Goble, 1986), and stress management workshops (Watson, 1986; Kunkler & Whittick, 1991); staff development workshops (Hunnicuttt & MacMillan, 1983); staff consultations (Hunnicuttt & MacMillan, 1983); ward reorganisation (Milne *et al.*, 1986); stress reduction programmes (Mehr *et al.*, 1995); change in nursing care delivery (Melchior *et al.*, 1996); interdisciplinary education (Bhatara *et al.*, 1996) and a training course in 'Type A' therapeutic skills (Lemma, 2000).

Stress management/development workshops have covered a range of topics. These include increasing awareness of causes and symptoms of burnout (Hunnicuttt & MacMillan, 1983; Kunkler & Whittick, 1991), development of effective coping strategies (Hunnicuttt & MacMillan, 1983; Kunkler & Whittick, 1991), relaxation (Watson, 1986; Kunkler & Whittick, 1991), biofeedback, autogenics (Watson, 1986) and self-hypnosis (Watson, 1986). Individual coping strategies are used to deal with the potential negative effects of stress; these are not always effective in reducing levels of stress and burnout. From the literature, more effective coping strategies need to be implemented at both individual and organisational levels to reduce the impact the many identified stressors have on psychiatrists' work and home lives. The effectiveness of specific stress management techniques needs to be formally evaluated. Training/education should be given in these techniques; psychiatrists may then be able to implement them usefully to enhance their own mental and physical well being.

CLINICAL IMPLICATIONS

There are a number of clinical implications resulting from high stress levels among psychiatrists. These include:

1. High levels of stress and burnout among psychiatrists may have an impact on their effectiveness working with clients.
2. Education and training is needed to help psychiatrists deal with the many identified stressors generated from the challenging and emotionally demanding work they engage in.
3. The personal stresses associated with patient suicide needs to be addressed to avoid the real psychological problems experienced by psychiatrists trying to cope with this difficult situation.

LIMITATIONS OF THE STUDY

There were a number of methodological weaknesses identified:

1. Findings were often not supported by statistical data, and few of the studies reported statistically significant findings.
2. In some of the papers located, data was gathered from staff in just *one* workplace (e.g. one community mental health centre), while in others data was gathered from staff across many sites. A wide range of research tools were used in the studies to measure stressors,

moderators and stress outcomes for psychiatrists. This makes it difficult to compare findings between different studies.

3. Finally, findings from the USA, Canada and European countries give some data, which might be usefully applied to the UK, but different countries operate very different health care systems, which means that generalising the various studies' findings is problematic and caution should be exercised.

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REFERENCES

- BAKER, M., NORTH, D. & SMITH, D.F. (1997) Burnout, sense of coherence and sources of salutogenesis in social workers. *Psychology*, **34**, 22–26.
- BENBOW, S.M. & JOLLEY, D.J. (1997) Old age psychiatrists: what do they find stressful? *International Journal of Geriatric Psychiatry*, **12**, 879–882.
- BENBOW, S.M. & JOLLEY, D.J. (1999) Gender, isolation, work patterns and stress among old age psychiatrists. *International Journal of Geriatric Psychiatry*, **14**, 726–732.
- BHATARA, V.S., FULLER, W.C., O'CONNOR-DAVIS, L. & MISRA, L.K. (1996) Improving job satisfaction of rural South Dakota mental health providers through education: a pilot study. *South Dakota Journal of Medicine*, **49**, 93–96.
- CARSON, J. & KUIPERS, E. (1998) Stress management interventions. In *Occupational Stress: Personal and Professional Approaches* (ed. S. Hardy, J. Carson & B. Thomas). Cheltenham: Stanley Thornes.
- CHEMTOB, C.M., HAMADA, R.S., BAUER, G. & KINNEY, B. (1998) Patients' suicides: frequency and impact on psychiatrists. *American Journal of Psychiatry*, **145**, 224–228.
- CLARK, G.H., JR & VACCARO, J.V. (1987) Burnout among CMHC psychiatrists and the struggle to survive. *Hospital and Community Psychiatry*, **38**, 843–847.
- CRYAN, E.M.J., KELLY, P. & MCCAFFREY, B. (1995) The experience of patient suicide among Irish psychiatrists. *Psychiatric Bulletin*, **19**, 4–7.
- DALLENDER, J., NOLAN, P., SOARES, J., THOMSEN, S. & ARNETZ, B. (1999) A comparative study of the perceptions of British mental health nurses and psychiatrists of their work environment. *Journal of Advanced Nursing*, **29**, 36–43.
- DAWKINS, J., DEPP, F.C. & SELZER, N.E. (1984) Occupational stress in a public mental hospital: the psychiatrist's view. *Hospital and Community Psychiatry*, **35**, 56–60.
- DEARY, I.J., AGIUS, R.M. & SADLER, A. (1996a) Personality and stress in consultant psychiatrists. *International Journal of Social Psychiatry*, **42**, 112–123.
- DEARY, I.J., BLENKIN, H., AGIUS, R.M., ENALER, N.S., ZEALLEY, H. & WOOD, R. (1996b) Models of job related stress and personal achievement among consultant doctors. *British Journal of Psychology*, **87**, 3–29.
- GOLDSTEIN, M.Z., BROMET, E.J., HANUSA, B.H. & LASELL, R.L. (1981) Psychiatrists' life and work patterns: a statewide comparison of women and men. *American Journal of Psychiatry*, **138**, 919–924.
- GORDON, V.B. & GOBLE, L.K. (1986) Creative accommodation: role satisfaction for psychiatric staff nurses. *Issues in Mental Health Nursing*, **8**, 25–35.
- GUTHRIE, E., TATTAN, T., WILLIAMS, E., BLACK, D. & BACLIOCOTTI, H. (1999) Sources of stress, psychological distress and burnout in psychiatrists. *Psychiatric Bulletin*, **23**, 207–212.
- HISCOTT, R.D. & CONNOP, P.J. (1989) Job stress and occupational burnout: gender differences among mental health professionals. *Sociology and Social Research*, **74**, 10–15.
- HISCOTT, R.D. & CONNOP, P.J. (1990) The health and wellbeing of mental health professionals. *Canadian Journal of Public Health*, **81**, 422–426.

- HOLLOWAY, F., SZMUKLER, G. & CARSON, J. (2000) Support systems: introduction. *Advances in Psychiatric Treatment*, **6**, 226–235.
- HUNNICUTT, A.W. & MACMILLAN, T.F. (1983) Beating burnout: findings from a three-year study. *Journal of Mental Health Administration*, **10**, 7–9.
- KALMAN, T.P. & GOLDSTEIN, M.A. (1998) Satisfaction of Manhattan psychiatrists with private practice: assessing the impact of managed care. *Journal of Psychotherapy Practice and Research*, **7**, 250–258.
- KAZARIAN, S.S., PERSAD, E. & MCCABE, S.B. (1995) Job satisfaction of psychiatrists in public psychiatric hospitals [letter]. *Canadian Journal of Psychiatry*, **40**, 220.
- KUNKLER, J. & WHITTICK, J. (1991) Stress-management groups for nurses: practical problems and possible solutions. *Journal of Advanced Nursing*, **16**, 172–176.
- LEEHEY, K. & MISIASZEK, J. (1985) Poor job quality and the decline of public psychiatry. *Hospital and Community Psychiatry*, **36**, 1180–1187.
- LEMMA, A. (2000) Containing the containers: the effects of training and support on burnout in psychiatric nurses. Unpublished Psychol.D, Surrey University, Surrey.
- LOONEY, J.G., HARDING, R.K., BLOTCKY, M.J. & BARNHART, F.D. (1980) Psychiatrists' transition from training to career: stress and mastery. *American Journal of Psychiatry*, **137**, 32–36.
- MARGISON, F.R. (1987) Stress in psychiatrists. In *Stress in Health Professionals* (ed. R. Payne & J. Firth-Cozens). Chichester: John Wiley.
- MEHR, M.L., SENTENEY, A. & CREADIE, T.M. (1995) Daydreams, stress and burn-out in women mental health workers: a preliminary clinical report. *Imagination, Cognition and Personality*, **14**, 105–115.
- MELCHIOR, M.E., PHILIPSEN, H., ABU-SAAD, H.H., HALFENS, R.J., VAN DE BERG, A. & GASSMAN, P. (1996) The effectiveness of primary nursing on burnout among psychiatric nurses in long-stay settings. *Journal of Advanced Nursing*, **24**, 694–702.
- MILNE, D., BURDETT, C. & BECKETT, J. (1986) Assessing and reducing the stress and strain of psychiatric nursing. *Nursing Times*, **82**, 59–62.
- NAISBERG-FENNIG, S., FENNIG, S., KEINAN, G. & ELIZUR, A. (1991) Personality characteristics and proneness to burnout: a study among psychiatrists. *Stress Medicine*, **7**, 201–205.
- OLKINUORA, M., ASP, S., JUNTUNEN, I., KALITTU, K., STRID, L. & AARIMAA, M. (1992) Stress symptoms, burnout and suicidal thoughts of Finnish Physicians. *Scandinavian Journal of Work and Environmental Health*, **18**, 110–112.
- PEACOCK, R. (1991) Stress in the workplace: studies of psychiatric nurses and prison service workers. PhD, Cranfield Institute of Technology, UK.
- PINES, A. & MASLACH, C. (1978) Characteristics of staff burnout in mental health settings. *Hospital and Community Psychiatry*, **29**, 233–237.
- SAVICKI, V. & COOLEY, E. (1987) The relationship of work environment and client contact to burnout in mental health professionals. *Journal of Counseling and Development*, **65**, 249–252.
- SCHULZ, R. & SCHULZ, C. (1988) Management practices, physician autonomy, and satisfaction: evidence from mental health institutions in the Federal Republic of Germany. *Medical Care*, **26**, 750–763.
- SHERWOOD, E. & GREENBLATT, M. (1987) Stresses, supports and job satisfactions of psychiatrist executives. *Administration in Mental Health*, **15**, 47–57.
- SNIBBE, J.R., RADCLIFFE, T., WEISBERGER, C., RICHARDS, M. & KELLY, J. (1989) Burnout among primary care physicians and mental health professionals in a managed health care setting. *Psychological Reports*, **65**, 775–780.
- THOMSEN, S., DALLENDER, J., SOARES, J., NOLAN, P. & ARNETZ, B. (1998) Predictors of a healthy workplace for Swedish and English psychiatrists. *British Journal of Psychiatry*, **173**, 80–84.
- THOMSEN, S., SOARES, J., NOLAN, P., DALLENDER, J. & ARNETZ, B. (1999) Feelings of professional fulfilment and exhaustion in mental health personnel: the importance of organisational and individual factors. *Psychotherapy and Psychosomatics*, **68**, 157–164.
- UNIVERSITY OF YORK NHS CENTRE FOR REVIEWS AND DISSEMINATION (2001) *Undertaking Systematic Reviews of Research on Effectiveness*. CRD Report Number 4, 2nd edn. York: University of York.
- WATSON, J. (1986) A step in the right direction . . . relaxation training for psychiatric staff. *Senior Nurse*, **5**, 12–13.
- WEBSTER, L. & HACKETT, R.K. (1999) Burnout and leadership in community mental health systems. *Administration and Policy in Mental Health*, **26**, 387–399.

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