

Psychological morbidity in general practice managers: a descriptive and explanatory study

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SUMMARY

Background. Proposals to establish an occupational health service for primary care should be informed by knowledge of the health needs of general practice employees.

Aim. To determine the prevalence and occupational correlates of stress, anxiety, and depression among practice managers in two contrasting health authorities in England.

Method. A postal questionnaire, soliciting information about stress induced by work-related activities, which contained the General Health Questionnaire (GHQ) and Hospital Anxiety and Depression Scale (HADS), was sent to all 149 practice managers in two health authorities areas of south-east England.

Results. Completed questionnaires were returned by 111 (75%) managers; 41/111 (37%) achieved GHQ case status with scores on HADS indicating that 49/111 (44%) classified themselves as anxious and 19/111 (17%) as depressed. The likelihood of being a case was found to be higher in managers from practices with larger numbers of GP partners ($P = 0.02$) and in managers from practices not in receipt of deprivation payments ($P = 0.03$). Multiple logistic regression showed that managers' perceived difficulties with general practice administration duties (relative ratio [RR] = 3.27, 95% confidence interval [CI] = 1.22–8.75) and dealings with GPs (RR = 1.86, 95% CI = 1.03–3.34) were the most powerful predictors of case status.

Conclusion. The questionnaire uncovered high prevalences of self-reported stress, anxiety, and depression in general practice managers. Although the vast majority of National Health Service (NHS) employees have access to an occupational health service, no such source of support exists for those working in general practice. The NHS needs to establish an occupational health service that caters to the needs of clinical and non-clinical members of primary health care teams.

Keywords: practice managers; psychological morbidity; questionnaire study.

Introduction

RESEARCH into the occupational and mental health of those employed in the United Kingdom National Health Service (NHS) has hitherto focused mainly upon clinical personnel in primary and secondary care settings.¹⁻⁷ Little is known about the health of non-clinical health services employees and, in particular, about those working in general practice. While all hospital employees in Britain have access to an occupational health ser-

vice, no such provision exists for those working within general practice.

We set out to assess the mental health profile of general practice managers employed in two contrasting health authorities areas in southern England — Buckinghamshire (Bucks), and Kensington, Chelsea, and Westminster (KCW) — chosen for their different urban/rural, deprived/non-deprived characteristics.

Method

After approval from local medical committees, a postal survey was conducted of all 149 practice managers in the two health authorities. The questionnaire incorporated two validated screening instruments for psychological morbidity: the General Health Questionnaire (GHQ)⁸ and the Hospital Anxiety and Depression Scale (HADS).⁹ Demographic information regarding each manager was requested together with data about their practice. Additionally, managers were asked to assess the degree of stress induced by a variety of work-related activities on a four-point Likert scale. (These variables were selected after an informal discussion of work-related stress with a number of practice managers.) The Likert scale scores were dichotomised, defining scores of 1 and 2 as 'not stressful', and 3 and 4 as 'stressful'. Managers were also asked to complete a modified version of the Stress Arousal Checklist (SACL)^{10,11} at three specified times (09:30, 12:00, and 16:00 hours) over three consecutive working days; mean scores were calculated for each manager.

Version 28 of the GHQ was used because this incorporates a depression (D) subscale.¹² Five of the seven items on the D subscale enquire about suicidal ideas, and those scoring positively on two or more of these five questions may be classified as having suicidal thoughts.⁷ Using the GHQ scoring method, those scoring greater than five were deemed to achieve case status.⁸ The HADS has two subscales that independently measure anxiety (A scale) and depression (D scale). A score of between eight and 10 on either scale is indicative of mild anxiety or depression; a score greater than 10 indicates the presence of moderate or severe anxiety or depression.¹³

Following a pilot survey, the study was conducted between April and August 1998. No financial incentives were offered to participants; non-responders were followed up with a maximum of two further mailings and one telephone reminder. Data were analysed using Microsoft Excel and SPSS for Windows. Associations between variables were investigated for statistical significance using chi-squared and *t*-tests; Fisher's exact test and Mann-Whitney U tests were employed as appropriate in the event of small numbers or non-normal distributions. Multiple logistic regression was used to identify the main predictors of morbidity, adjusted for confounding factors.

Results

One hundred and forty-nine (76%) of the 195 practices in the two health authorities employed a practice manager during the study period. Eighty-seven (95%) of the 92 practices in rural Buckinghamshire employed a practice manager compared with 62 (60%) of the 103 practices in urban Kensington, Chelsea, and Westminster ($P < 0.001$, 95% CI = 24% to 45%). Of these, 111/149 (74.5%) completed the questionnaire. There were no

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Submitted: 25 February 1999; final acceptance: 7 August 1999.

© British Journal of General Practice, 2000, 50, 203-206.

differences between responders and non-responders in terms of sex, practice size, or health authority. Managers were predominantly white (93%), female (87%), with a mean age of 46.5 years (SD = 9.1). Half (54%) were educated to 'A' level standard or above, and 53% possessed a management qualification. With an average gross pay of £11.00/hour (SD = 2.26), the managers' pay varies independently of sex, age, years of experience, and academic qualifications. However, pay is significantly higher in those with a management qualification (difference in means +£1.37/hour, 95% CI = £0.48 to £2.27/hour, $P = 0.003$). Eighty-two per cent of managers estimate that they regularly work more than their contracted number of hours (median = 11 hours, range = 1 to 18 hours/week).

Psychological morbidity

Thirty-seven per cent (41/111) of managers achieved case status on the GHQ-28. Scores on the HADS indicated that 49/111 (44%) classified themselves as suffering from anxiety, and 19/111 (17%) attained scores indicating depression. Fifty-two (47%) managers achieved case status on at least one of the screening tools used.

There was no statistical association between the risk of being a case, defined as attaining case status on either of the validated screening tools used, and manager age, sex, ethnicity, experience, qualifications, hours of overwork, or pay; and no statistical association could be demonstrated with list size, fundholding, or training status, nor with the presence or absence of an assistant manager in the practice. However, the likelihood of being a case was significantly higher in practices with a greater number of whole time equivalent (WTE) partners ($P = 0.02$) and in managers working in practices that were not in receipt of deprivation payments ($\chi^2 = 4.76$, $P = 0.03$).

Perceived causes of stress

Managers most commonly cited finding locums (57/111) and future planning (49/111) as stress-inducing activities. Table 1 compares the proportions of managers reporting work activities as stressful, by case status. In view of the consistency of the results, adjustment for multiple significance testing was unnecessary.¹⁴

On comparing health authorities, managers in the two areas differed in several respects in relation to personal and practice characteristics (Table 2). Managers in Bucks scored appreciably higher on each of the measures of psychological morbidity than managers in KCW (Table 3). For 81/149 (54%) managers who completed the modified SACL, mean scores were significantly higher in Bucks than in KCW (2.90 versus 2.11, $P = 0.005$, 95% CI = 0.25 to 1.34).

Comparing cases with non-cases

Cases and non-cases were compared in order to ascertain which

personal, practice, or work-related activities were most predictive of practice manager psychological morbidity. A multiple logistic regression model was fitted using all factors found to be significantly associated ($P < 0.1$). Table 4 lists factors in descending order of importance and shows that 'practice administration' (relative ratio [RR] = 3.27, 95% CI = 1.22 to 8.75) and 'dealings with GPs' (RR = 1.86, 95% CI = 1.03 to 3.34) are by far the most powerful predictors of managers attaining GHQ/HADS case status. All other factors, which had shown significant univariate associations with case status, became non-significant in the multiple regression model. The mean deviance of the model (defined as the ratio of the deviance to its degrees of freedom) is 1.09, indicating that the model generated explains almost all of the systematic differences between cases and non-cases. Cases also scored higher mean scores on the modified SACL than non-cases (3.32 versus 1.84, 95% CI = 1.04 to 1.94, $P < 0.001$).

Discussion

Our study reveals high levels of stress, anxiety, and depression among GP practice managers in two contrasting health authorities in southern England. Over 90% of the 9538 general practice partnerships in England and Wales now employ one or more practice managers.¹⁵ They are essential to the day-to-day running of practices and central to the capacity of the service to respond effectively to its growing responsibility in the NHS. This small study shows that practice managers are a heterogeneous group in terms of remuneration, formal education, and management qualifications, but our sample of managers is comparable, in terms of average remuneration and the distribution of pay, with the findings of a recently conducted national study of the working conditions of practice managers.¹⁶

Although separating job stresses from other causes of stress can be difficult, the high levels of psychological morbidity detected in this study point to occupational stress as being prominent within this group of employees. There is no normative data for GHQ-28; however, this does exist for version 30 of the GHQ, and results are likely to be broadly comparable. In the general population, 29% of people in south-east England, and 32% of females within the age group of managers in this study (25 to 64 years), would be expected to achieve case status on Version 30.¹⁷ Normative data shows that age does not seem to exert a strong influence upon GHQ score, although several studies have shown a tendency for scores of females to decline with age, at least until the age of 65 years.⁸ These data tend to rule out the stress of assuming a domestic carer's role as a hidden explanation of the high prevalence of psychological morbidity found among the predominantly female practice managers in this study, as the likelihood of becoming a carer increases steeply with age.¹⁸

The Health and Lifestyle Survey (1987)¹⁹ showed that 24% of males and 28% of females in the professional and managerial group attained case status, and, when these surveys were repeat-

Table 1. Self-perceived causes of occupational stress in practice managers, and comparison between cases and non-cases.

Work activity	Total (%) (n = 111)	Cases (%) (n = 59)	Non-cases (%) (n = 52)	Significance
Future planning	49 (44)	36 (61)	13 (25)	$P < 0.001$
Practice finances	27 (24)	20 (34)	7 (13)	$P = 0.001$
Dealings with GPs	31 (28)	22 (37)	9 (17)	$P = 0.002$
Practice administration	13 (12)	11 (19)	2 (4)	$P = 0.004$
Finding locums	57 (51)	32 (54)	25 (48)	$P = 0.044$
Dealings with admin. staff	18 (16)	12 (20)	6 (12)	$P = 0.066$
Surgery maintenance	27 (24)	16 (27)	11 (21)	$P = 0.137$
Dealings with patients	21 (19)	9 (15)	12 (23)	$P = 0.684$

Table 2. Main differences between Buckinghamshire (Bucks) and Kensington, Chelsea & Westminster (KCW) with respect to characteristics of managers and practices and work-related stress.

Variable	KCW (n = 45)	Bucks (n = 66)	95% CI (Bucks-KCW)	Significance
Mean age (SD)	42.40 (9.20)	49.23 (7.90)	3.59–10.06	P = 0.001
Mean wage per hour (SD)	£11.52 (1.91)	£10.58 (2.40)	-1.89–0.01	P = 0.05
Educated to 'A' level or above	68%	45%		P = 0.02
Median list size in thousands (range)	4.5 (1.6–11)	7.5 (1.2–23.5)		P = 0.001 ^a
Median number of WTE GPs (range)	2 (1–5)	3.25 (1–10)		P < 0.001 ^a
Percentage reporting practice administration to be stressful	7%	15%		P = 0.172
Percentage reporting dealings with admin. staff to be stressful	7%	23%		P = 0.024
Percentage reporting future planning to be stressful	27%	56%		P = 0.03

Table 3. The proportion of managers achieving case status on the General Health Questionnaire and The Hospital Anxiety and Depression Scale in Kensington, Chelsea, & Westminster (KCW), and Buckinghamshire (Bucks).

Questionnaire	KCW (n = 45)	Bucks (n = 66)	Significance
GHQ 28			
No (%) with score >5	11 (24)	30 (45)	P = 0.02
HADS A			
No (%) with score ≥8	13 (29)	36 (55)	P < 0.01
HADS D			
No (%) with score ≥8	5 (11)	14 (21)	P = 0.17 ^a
No (%) with suicidal thoughts	0 (0)	5 (8)	P = 0.17 ^a
No (%) scoring positively on either of the screening tools	14 (31)	38 (58)	P < 0.01

^aFisher's exact test used to calculate P-values

Table 4. Multiple logistic regression analysis of factors predicting the likelihood of being a case on either the General Health Questionnaire or the Hospital Anxiety and Depression Scale.

Variable	Relative risk of being a case	95% CI	Significance
Practice administration	3.27	1.22–8.75	P = 0.02
GP dealings	1.86	1.03–3.34	P = 0.04
Administrative staff dealings	1.73	0.88–3.41	P = 0.11
Number of WTE GPs in practice	1.18	0.84–1.65	P = 0.35
Future planning	1.33	0.68–2.58	P = 0.41
Practice finances	1.18	0.62–2.25	P = 0.61
Finding locums	1.15	0.64–2.07	P = 0.63
Working in Buckinghamshire	1.10	0.21–5.71	P = 0.91
Non-deprived practice	0.79	0.15–4.20	P = 0.79

ed seven years later, very similar results were obtained.²⁰ Thirty-seven per cent of managers in our study attained case status on the GHQ-28 and, as in other studies, sex differences were noted, with higher morbidity among women employees,²¹ but the differences failed to achieve statistical significance, possibly because of the small number of male managers in our study population (40% versus 14%, $\chi^2 = 3.52$, $P = 0.60$).

The HADS findings also point to high levels of anxiety and depression in the practice manager group, with 47% overall achieving case status in one or more of the study screening tools. This proportion is similar to those found in Caplan's study of hospital consultants, general practitioners, and senior health service managers.⁷ Practice manager scores on the HADS are of the same magnitude as those that Chambers found among Staffordshire general practitioners; 43% of whom scored themselves as having anxiety and 26% as having depression.²¹ While some stress is probably needed to promote optimal performance, exceeding optimum stress levels can have deleterious effects upon both physical and psychological health, and lead to clinical

anxiety, depression, and poor work performance.²²

It is only possible to derive a schematic understanding of the important stress-inducing factors among managers from the information we obtained. Other than difficulties in finding locums, factor *external* to the practice appear to have little influence. Far more important are factors *internal* to the practice, including difficulties with particular aspects of the practice manager's role, such as administration, future planning, and dealings with general practitioners (Table 4). While practice managers' roles are notoriously varied and involve a wide range of different activities, further investigation using qualitative techniques is required to gain detailed knowledge of these problems and to determine whether they are amenable to intervention.

The vast majority of NHS employees benefit from an occupational health service, but no similar source of support, counselling, or health advice exists for those working in general practice. A recent study in general practice has shown that most primary care staff do not know where to obtain occupational health advice,²³ and that the majority of the practices in which they are

employed have no policies or procedures in place to manage health and safety.²⁴

Discussions about the need for an occupational health service for general practice have hitherto focused mainly upon the needs of the clinical members of the team. Our findings indicate that the health needs of other members of the team should also be catered for. Possible options could include extending the existing NHS occupational health scheme to cover general practice,^{25,26} or encouraging primary care groups to commission services for all the staff of their constituent practices. The primary care-led NHS urgently needs to lead on an occupational health service for general practice.

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Acknowledgements

Thanks are due to John Howie, Professor of General Practice, University of Edinburgh, for advice on the design of the study, and Adrian Cook, Imperial College School of Medicine, for statistical advice. Thank you to The London Academic Training Scheme for funding AS's post, and the RCGP Scientific Foundation Board for funding this study.

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