Stress and the new contract for general practitioners

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Abstract

The impact of a major organizational change on general practitioners in the UK was assessed using a postal questionnaire during July-August 1990. The results were compared with those obtained in a previous survey in November 1987. A total of 917 (61 per cent response rate) general practitioners completed the questionnaire measuring aspects of the job causing stress, job satisfaction and mental wellbeing. Compared with 1987, doctors in 1990 experienced significantly decreased levels of job satisfaction and reported levels of somatic anxiety and depression were higher. The stress associated with the demands of the job and patients' expectations, practice administration and routine medical work, role stress and the use of social support as a coping strategy were the strongest predictors of job dissatisfaction and poor psychological wellbeing.

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With a united voice, men of science, technology and philosophy tell us that we are experiencing a period of change, which compared with events in the past is nothing less than a revolution. In just one lifetime we have witnessed a startling acceleration of change in society and must attempt to cope with this rapid pace by adapting to new situations and circumstances. Doctors working in general practice have been no exception to this and in the past 30 years a number of studies have documented many changes, together with certain deleterious outcomes[1-12].

In this article we consider in detail the impact of one profound and far-reaching change, that is the introduction of the new contract in April 1990. Also, we consider the strategies used by general practitioners to meet the new demands made and suggest options for further action in the management of stress caused by the enforced changes.

The new contract

It is without argument that a significant change in the scope of the work of the general practitioner occurred as a direct result of the "Working for Patients" initiative[13] and the New General Practitioner Contract of April 1990. As Myerson[14] describes, these have had major implications for doctors in that:

> General practitioners now treat patients whom they would have formerly referred for hospital care, as a result of changed provisions for general practitioner payments. They now do more minor surgery, and use more invasive procedures. There is some opportunistic targeting as the provision for payments may compete with the requirements of the patient … change in the capitation pay arrangements which militate towards larger lists … every new patient must be examined, every patient listed must be offered an examination at least every three years, and the elderly patients must be visited in the home at least once a year.

In addition to these demands a strong emphasis on preventive medicine requires general practitioners to do more of their work in preventive clinics of their own devising[15, 16] plus fulfil the administrative statutory requirements for submission of a medical audit to the Family Health Service Authority (FHSA).

The introduction of the new contract and the inevitable changes came at the end of a period of considerable dispute and disagreement[17-19], causing much unrest and ill-

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feeling in general practice. It also had the result of directing often ill-informed media and public opinion and criticism towards general practice, thereby adversely affecting doctor-patient relationships at a time when they needed extra help and consideration in adjusting to the change imposed.

Identifying stress among general practitioners prior to the introduction of the new contract

Studies conducted prior to the introduction of the new contract provide some insight on the sources of pressure and stress among doctors in general practice. For example, Porter *et al.*[9] studied the relationships between workload, stress, job performance and quality of care in three group practices in Edinburgh. An in-depth study of 18 doctors provided detailed information about the allocation of time and consultation rates: during 66 surgery sessions this averaged seven patients per hour (range = 3.8 to 11.5). Direct patient care accounted for 83 per cent of the allocated time (excluding night work and weekend working) and consultation rate was associated with the report of perceived pressure at work. The implications of this for patient care and satisfaction were revealed in a study by Morrell *et al.*[6]. In over 780 surgery sessions, booked at five-minute intervals, compared with seven-and-a-half or ten-minute intervals, the doctors spent less face-to-face time with patients and identified fewer problems, and the patients were less satisfied with the consultation. Grol *et al.*[20] observed associations between the degree of job satisfaction and performance among general practitioners. Negative feelings about work, tension, frustration and time pressures were related to a tendency not to provide patients with explanations and with a high rate of prescription, whereas positive feelings about work (satisfaction and feeling at ease) were associated with a more open approach to patients and more attention to the psychosocial aspects of complaints.

In an attempt at a systematic identification of sources of stress among general practitioners, Makin *et al.*[4] conducted a series of interviews in a pilot study and then in a follow-up survey administered postal questionnaires to a large UK national sample (n = 1,817) of doctors working in group practice[2]. Thirty-eight potential sources of stress were rated on a five-point scale and analysed to identify common themes or patterns of stress. Six such factors emerged, namely demands of the job and patients' expectations; interruptions; practice administration; work and home interface and social life; dealing with death and dying; and medical responsibilities for friends and relatives.

In terms of outcomes, that is, the manifestations of exposure to stress, Cooper *et al.*[2] observed that woman doctors were significantly more job satisfied than male general practitioners. Satisfactions were greatest with the intrinsic features of the job, that is the amount of freedom, autonomy and variety of work; but the least satisfaction was expressed towards the extrinsic factors, such as the hours of work and rate of pay. The demands of the job, the home-work interface, interruptions and practice administration were the strongest predictors of job dissatisfaction among general practitioners during November 1987. Three scales of the Crown-Crisp Experiential Index were used to measure levels of anxiety, depression and somatic anxiety among this group. Compared with the general population norm, women doctors had significantly better (lower) scores on all three dimensions, whereas the male doctors were significantly more anxious than the general population. Stressor predictors of poor mental wellbeing included interruptions at work and home, practice administration, job demands and patients' expectations and the work/home interface. It was noted at the time of this survey that the stressors tended to be associated with social and/or managerial skills rather than technical skills and these could be developed by training.

Identification of stress following the introduction of the new contract

It was suggested by Sutherland and Cooper[21] that the new contract may have reduced general practitioners' perceptions of autonomy at work (i.e. freedom of action and autonomy in decision making). If this assumption was proved correct, the demands of the job (that is, the high workload and responsibility for others, which has already been well documented) would also be perceived as more stressful. Karasek[22] describes this as a "strain" job, rather than an "active" job. It was also suggested that the new contractual requirements may have

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forced doctors to regard medicine more as a business venture than a vocation. Thus, the general practitioner would be faced with the strains of meeting and balancing new role demands. Indeed, it is also suggested that general practitioners are also required to work as part of multidisciplinary teams with other professionals[23]. Efficient and effective team working takes time and effort and doctors have received little formal team-work training. It would seem, therefore, that these changes in the ways of working, resulting from the introduction of the new contractual arrangements, have produced a profession which is characterized by constant financial constraints, ever-demanding patients, a high level of practice administration duties (including being on call and night working), and the element of uncertainty in a highly visible arena (fear of making mistakes, needing "to be sure")[2,24].

To examine the impact of the introduction of the new contract a stress audit was conducted. This cross-sectional survey would enable us to compare the results with those obtained by Cooper *et al.* in 1987[2] and to examine sources of stress among this occupational group, prior to the introduction of stress management interventions. Ultimately, the objectives are to tackle stress at the level of the individual (to cure symptoms of exposure to stress and help the individual to cope more effectively with the strains and pressure of the job), and at the organizational level (to minimize or eliminate sources of stress by changing systems and practices; thus this aims to prevent the damaging consequences of stress)[25]. This approach to stress management acknowledges that not all stress is bad, nor can it be avoided, because being alive is synonymous with responding to stress[26], since it is necessary for motivation, growth and development. When a source of stress is unmanageable or unwanted (or when a perceived demand exceeds one's perceived ability to cope), a state of stress is said to exist. Thus it is important to distinguish between this form of negative stress, or "distress", and positive stress, known as "eustress"[27].

A four-phase approach is required in order to identify negative stress. First, to recognize the potential stressors that exist; second, to examine individual or person factors that are known to mediate in the stress-response process; next to measure the wellbeing of the population in terms of recognized manifestations of stress, such as physical and psychological ill health, job dissatisfaction and maladaptive coping mechanisms (e.g. alcohol and drug abuse). The final phase is to identify the stressors most strongly associated with negative outcome (e.g. depression, anxiety, alcohol abuse).

Sample

Questionnaire packs and prepaid return envelopes were sent to a random, national sample of 1,500 general practitioners in July and August, 1990. The questionnaires were not anonymous, and those who did not reply within four weeks were reminded by telephone. Confidentiality of individual data was assured by the return of the questionnaires to University of Manchester Institute of Science and Technology: guarantees were given to protect the identity of the respondents and to encourage honesty in reporting. The findings of this survey were compared with the results obtained from 1,817 general practitioners during November 1987. As well as being done at different times of the year, the surveys differed in that the earlier survey was anonymous; it is not known to what extent this may impact on the findings from the two studies.

Measures

Mental health

This was measured with a shortened version of the Crown-Crisp Experiential Index[28]. Three of the most reliable sub-scales were used, namely free floating anxiety (unease, worry without specific cause), depression (sadness of mood), and somatic anxiety (general fatigue or aches and pains). Each of the sub-scales is composed of eight items (scored 0, 1, or 2) giving a maximum sub-scale score of 16; a low score is indicative of good health.

Job satisfaction

Ten items (identified as appropriate to the sample) from the Warr *et al.* job satisfaction scale[29] were used to measure job satisfaction. Each item is rated on a seven-point scale (high score = high satisfaction).

Demographic factors

Details were obtained about age, sex, partnership, the practice size, full- or part-time work and numbers of surgeries worked from.

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Personality

Two personality styles were assessed using the Occupational Stress Indicator (OSI)[30]. Type A coronary-prone behaviour (TAB) was measured with a 14-item questionnaire, using a six-point Likert-type scale (polarity: high score = high TAB). TAB is acknowledged as an indicator of the stress-prone personality, and is an independent risk factor for cardiovascular diseases. This behaviour pattern may be described as highly competitive, unrelenting, hard driving, with a strong sense of time urgency; impatience and restlessness when not working.

***Locus* of control (LOC)**

This is an acknowledged style of behaviour which can enhance or mediate in the response to a source of stress. The OSI measure of LOC indicates the degree of "internality" or "externality", which means the extent to which an individual perceives that he/she has control over what happens, the decisions made, and the actions taken in determining events and outcomes. The LOC scale consists of 12 statements which are rated on a six-point Likert-type scale, (polarity: low score = internally oriented LOC).

Job stress questionnaire

Sources of stress were measured in two ways. The 31 stressor item bank developed from interviews conducted by Cooper *et al.*[2] was used. Each item was rated on a five-point scale. Factor analysis revealed six factors:

(1) Demands of job and patients' expectations:
- fear of assault during night visits;
- visiting in extremely adverse weather conditions;
- adverse publicity by media;
- increased demand by patients and relatives for second opinion from hospital specialists;
- no appreciation of your work by patients;
- worrying about patients' complaints;
- finding a locum;
- twenty-four hour responsibility for patients' lives;
- taking several samples in a short time;
- unrealistically high expectations by others of your role;

(2) Interruptions:
- coping with phone calls during night and early morning;
- night calls;
- interruption of family life by telephone;
- emergency calls during surgery hours;
- home visits;
- dealing with problem patients;
- remaining alert when on call.

(3) Practice administration and routine medical:
- hospital referrals and paper work;
- conducting surgery;
- practice administration;
- arranging admissions;
- working environment (surgery set-up);
- time pressure.

(4) Home-work interface and social life:
- demands of your job on family life;
- dividing time between your spouse and patients;
- demands of job on social life;
- lack of emotional support at home, especially from spouse.

(5) Dealing with death and dying:
- daily contact with dying and chronically ill patients;
- dealing with the terminally ill and their relatives.

(6) Medical responsibility for friends and relatives:
- friends as patients;
- relatives as patients.

Factor scores for each respondent were calculated as a precursor to regression analysis (to identify stressor predictors of ill health, etc.). Also, the sources of job pressure scale of the OSI was used to assess levels of stress in six areas of life and work, namely stress intrinsic to the job; one's role at work; career and achievement; relationships with other people; the organizational structure and climate; and the home-work interface. The job pressure scale comprises 61 items which are rated on a six-point Likert-type scale (1 = no pressure; 6 = high pressure; polarity: high score = high pressure). Factors scores were calculated for each of the six stress factors for use in regression analysis.

Coping styles

These were measured using the OSI, which has a 28-item scale to assess how an individual typically copes with stress by utilizing various coping strategies. Six possible sources of

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coping are measured: using social support; task-oriented strategies; logic; home-work relationships, time management and involvement. Each item is rated on a six-point scale; high scores indicate high use of that particular sub-scale of coping.

Statistics

Unpaired student's *t*-tests were used to test normative and gender difference comparisons. The Bonferroni test of inequality was used to minimize the risk of type 1 errors. Although the data were skewed, use of the *t*-test is valid because of the large sample size. To analyse the relation between the dependent variables (job satisfaction and mental health) the independent variables (personal and job demographic factors, type A behaviour, *locus* of control, coping styles and stress factors), stepwise multiple regression analysis was used. Interaction between the dependent variables was not considered. In trying to isolate optimal predictors the cut-off point was determined by two criteria:

(1) that the overall *F* ratio for the equation was significant; and
(2) that the partial regression coefficient for the individual independent variable being added was at a statistically significant level and explained at least 1 per cent of the variance[31].

Results

Questionnaires were returned by 1,002 of the 1,500 general practitioners; 917 questionnaires (61 per cent) could be used for statistical analysis. Table I shows that a higher percentage of respondents were women in the 1990 survey than in 1987 (26.5 per cent (243) and 18.9 per cent (343) respectively). This probably reflects the increasing numbers of women entering the profession. A higher percentage of respondents were in the 35-44 age group in 1990 (49.3 per cent (452)) than in 1987 (35.1 per cent (638)). Only 20.7 per cent (190) were aged more than 45 compared with 36.9 per cent (670) in 1987. Thus the respondents in the 1990 survey had a younger profile. In 1990 the average personal NHS size was 1,894 (714 sd), and approximately 30 per cent of doctors stated that they worked from more than one practice surgery.

Table II shows the mean ratings for the 31 job stressor items and comparisons between August 1990 and November 1987. On 25 of the 31 items, significantly higher levels of pressures were recorded during August 1990. Night calls (mean score = 3.83), emergencies during surgery hours (3.72), and interruption of family life with telephone calls (3.58) comprised the top three sources of stress in 1990. Since gender differences could mask important variation in response to stress, the mean scores for each group were examined. Female general practitioners reported more stress than males for visiting in adverse weather conditions, fear of assault during night visits, finding a locum, the working environment, lack of emotional support at home, and dealing with friends or relatives as patients ($p < 0.01$). They were less stressed than male doctors by emergency calls during surgery hours ($p < 0.01$).

Table III shows the mean scores obtained for each sub-scale of the Crown-Crisp Experiential Index and the total job satisfaction scale and indicates that mental health and job satisfaction levels were significantly poorer in 1990 than in November 1987. Female general practitioners reported being more anxious and depressed in 1990, but their scores were still comparable with the population norms. Levels of somatic anxiety were also

Table I Demographics

Variable	Number (%) in August 1990 (*n* = 917)	Number (%) in November 1987 (*n* = 1,817)
Males	670 (73.1)	1,474 (81.1)
Females	243 (26.5)	343(18.9)
Not classified	4 (0.4)	
Age		
25-34	269 (29.3)	509 (28.0)
35-44	452 (49.3)	638 (35.1)
45-54	115 (12.5)	367 (20.2)
55-64	67 (7.3)	276 (15.2)
>65	8	27 (1.5)
Working in a partnership	853 (93)	1,649 (91)
Personal NHS list size (average)	1,894 (sd = 714)	data not available
(Range)	10-4,100	
(Mode)	2,000	
Number of surgeries practised from	1 (69%)	
	2 (25%)	
	3 (4.5%)	
	4 (1.1%)	
	5-9 (1.5%)	

Table II Mean score and sd ratings for job stressors in November 1987 and August 1990

	*November 1987 (*n* = 1,817)		August 1990 (*n* = 917)		
	Means	**sd**	**Means**	**sd**	***t* value**
Fear of assault during night visits	1.77	1.10	1.88	1.17	2.4*
Visiting in extremely adverse weather conditions	2.27	1.13	2.19	1.24	ns
Adverse publicity by media	2.01	1.16	2.46	1.21	9.4***
Increased demand by patients and relatives for second opinion from hospital specialists	2.15	0.95	2.65	1.04	12.5***
No appreciation of your work by patients	1.81	0.90	2.18	0.99	9.8***
Worrying about patients' complaints	2.47	1.21	2.64	1.14	3.5**
Finding a locum	2.03	1.16	1.97	1.17	ns
Twenty-four hour responsibility for patients' lives	2.39	1.14	2.94	1.34	11.2***
Taking several samples in a short time	1.74	0.88	2.12	1.03	9.8***
Unrealistically high expectations by others of your role	2.41	1.08	2.80	1.12	8.8***
Coping with phone calls during night and early morning	3.32	1.12	3.58	1.22	5.5***
Night calls	3.45	1.04	3.83	1.24	8.4***
Interruption of family life by telephone	2.73	1.09	3.58	1.22	18.4***
Emergency calls during surgery hours	3.48	1.08	3.72	1.12	5.4***
Home visits	2.20	0.82	2.35	0.93	4.3**
Dealing with problem patients	3.28	0.94	3.24	1.03	ns
Remaining alert when on call	2.10	1.09	2.67	1.13	12.7***
Hospital referrals and paper work	1.89	0.84	2.74	0.80	25.3***
Conducting surgery	2.07	0.79	2.08	0.82	ns
Practice administration	2.12	0.93	2.69	1.07	14.3***
Arranging admissions	2.32	0.97	2.44	0.99	3.0*
Working environment (surgery set-up)	1.64	0.87	2.03	1.04	10.3***
Time pressure	3.11	1.07	3.52	1.10	9.3***
Demands of your job on family life	2.76	1.03	3.50	1.16	16.9***
Dividing time between your spouse and patients	2.37	1.07	3.22	1.26	18.3***
Demands of job on social life	2.40	1.01	3.13	1.20	16.7***
Lack of emotional support at home, especially from spouse	1.67	1.00	1.87	1.17	4.6**
Daily contact with dying and chronically ill patients	2.13	0.90	2.07	1.00	ns
Dealing with the terminally ill and their relatives	2.15	0.89	2.20	1.02	ns
Dealing with friends as patients	2.23	1.10	2.45	1.06	5.0***
Dealing with relatives as patients	2.17	1.20	2.38	1.26	4.3***

Notes:
Two-tailed tests significant at: *** $p < 0.002$; ** $p < 0.01$; * $p < 0.05$.
(polarity: high score = high stress)
Source: [2]

significantly higher, but were still much lower ($p < 0.001$) than for the female population generally; this same pattern also emerged for the male doctors. However, male general practitioners continued to exhibit a much higher level of free floating anxiety than the normative population, as observed in 1987. Also, in 1987 male general practitioners reported depression levels consistent with the normative population, but these were found to be significantly higher when measured in 1990.

An examination of the job satisfaction scale items indicates that doctors were less satisfied in 1990 than in 1987 with regard to the amount of responsibility given, variety in the

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Table III Dependent variables and descriptive statistics: Crown-Crisp Experiential Index sub-scales[28] and the Warr *et al.*[29] ten-item job satisfaction scale (gender and normative comparisons)

	1987			1990				Population			
	No. of subjects	Mean	(SE) score	No. of subjects	Mean scores	(SE) scores	*t* value[a]	No. of subjects	Mean scores	(SE) scores	*t* value[b]
Free floating anxiety											
Men	1,439	3.7	(0.08)	664	4.76	(0.13)	7.33***	340	2.80	(0.15)	9.34***
Women	335	4.48	(0.18)	241	5.90	(0.23)	3.78***	415	5.40	(0.17)	1.76
Somatic anxiety											
Men	1,439	2.36	(0.06)	666	3.12	(0.10)	6.80***	340	4.30	(0.16)	7.00***
Women	335	2.65	(0.12)	237	3.56	(0.17)	4.67***	415	5.70	(0.16)	8.63***
Depression											
Men	1,439	2.94	(0.07)	662	3.80	(0.12)	7.12***	340	3.20	(0.12)	3.91***
Women	335	3.37	(0.13)	236	4.02	(0.16)	3.04**	415	4.40	(0.12)	1.87
Job satisfaction											
Men	1,439	50.3	(0.22)	667	46.20	(0.28)	10.99***				
Women	336	52.8	(0.40)	242	48.40	(0.40)	7.41***				

Notes:

** $p < 0.01$, *** $p < 0.001$

[a]comparison of general practitioners' scores in 1987 and 1990

[b]comparison of general practitioners' scores with that of normative population

high scores = poor mental health; high job satisfaction

Source: [2] (UK Sample of general practitioners)

job, physical conditions at work, amount of freedom to choose own methods of working, and recognition received for good work ($p < 0.001$). They were more satisfied with opportunities to use abilities, rate of pay, and hours of working ($p < 0.001$), a reverse of the 1987 findings. However, this should be interpreted with care because analysis of variance results also indicated that age ($F = 5.33$, $p < 0.001$, $df = 3$) and gender($F = 6.79$, $p < 0.01$, $df = 1$) had an impact on reported total job satisfaction. For example, women were more satisfied than men, and those between the ages of 35 and 44 were less satisfied than those younger than 35 or aged 45 or over. Specifically, women were more satisfied with their hours of work ($p < 0.01$), recognition ($p < 0.001$), and freedom to choose methods of working ($p < 0.001$).

Predicting stress outcomes

To examine the relation between the dependent variables (free floating anxiety, depression, somatic anxiety and job dissatisfaction) and the independent variables (personal and job demographics, type A behaviour, *locus* of control, coping style, and job stressors), stepwise multiple regression analyses were used.

Job satisfaction

Table IV shows the variables which accounted for 45 per cent of the variance: the main predictor (21 per cent) was the pressure associated with the demands of the job and patients' expectations. Other stressor sources included the stress of the organization structure and climate and the home-work interface. Low use of social support as a coping strategy was also related to reported job dissatisfaction and a significant difference in the reported use of social support as a stress coping strategy was observed between male and female doctors, with women more likely to use this method of coping than men; (mean scores 16.3 (sd 3.0) and 14.1 (sd 2.9) respectively, $p < 0.001$). Women doctors were also more likely than male doctors to use home-work relationships as a way of coping with

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Table IV Multiple regression analysis: predicting stressor outcomes, anxiety, depression, somatic anxiety and job satisfaction

Dependent variable	Step	Independent variables	Beta	*T* value	*P*	R^2
Job satisfaction[29]	1	Factor 1: demands of job and patients expectations	–0.30	–9.37	<0.000	0.21
	2	Stress: organization structure and climate (OSI)	–0.20	–4.57	<0.000	0.07
	3	Social support – coping strategy	0.24	8.79	<0.000	0.06
	4	Factor 4: home-work interface	–0.29	–7.58	<0.000	0.03
	5	Stress: home-work interface (OSI)	0.27	6.35	<0.000	0.02
	6	Number of surgeries practised from	–0.17	–6.14	<0.000	0.02
	7	Stress: career and achievement (OSI)	–0.22	–5.14	<0.000	0.02
	8	Factor 3: practice administration routine medical	–0.14	–4.23	<0.000	0.01
Anxiety	1	Factor 1: role stress (OSI)	0.22	5.90	<0.000	0.14
	2	Factor 1: demands of job and patient expectations	0.17	4.44	<0.000	0.04
	3	Gender	0.14	4.38	<0.000	0.02
	4	Factor 3: practice admin/routine medical	0.16	4.33	<0.000	0.02
	5	Number of surgeries practised from	0.10	3.08	<0.002	0.01
	6	Involvement – coping strategy	–0.13	–4.01	<0.001	0.01
	7	Type A behaviour	0.11	3.59	<0.001	0.01
Depression	1	Factor 1: demands of job and patient expectations	0.28	8.23	<0.000	0.13
	2	Home-work interface stress (OSI)	0.24	7.02	<0.000	0.05
	3	Social support – coping strategy	–0.18	–5.56	<0.000	0.03
Somatic anxiety	1	Factor 1: demands of job and patient expectations	0.23	6.08	<0.001	0.12
	2	Home-work interface stress (OSI)	0.15	4.23	<0.000	0.03
	3	Factor 3: practice administration medical administration	0.12	3.29	<0.001	0.01

Notes:
Job satisfaction. $R^2 = 0.446$, $F = 77.35$, $df^* = 8{,}766$, $p < 0.001$.
Anxiety. $R^2 = 0.24$, $F = 36.2$, $df^* = 7{,}767$, $p < 0.001$.
Depression. $R^2 = 0.208$, $F = 68.56$, $df^* = 3{,}771$, $p < 0.001$.
Somatic anxiety. $R^2 = 0.156$, $F = 46.46$, $df^* = 8{,}766$, $p < 0.001$.
* *df* may vary from total sample size because of non-response to a question.

stress (i.e. support from the home environment, hobbies and outside interests) (mean scores 16.4 (sd 3.1) and 15.6 (sd 3.4) respectively $p < 0.001$). Finally, practice from more than one surgery emerged as a minor predictor of job satisfaction; job satisfaction levels decreased as the number of practice premises increased.

Anxiety

Seven variables accounted for 24 per cent of the variance on free floating anxiety, including role stress, the demands of the job and patients' expectations and practice administration. Other minor predictors included gender (high anxiety scores were associated with female doctors; this is consistent with normative data comparisons) and the type A coronary-prone style of behaviour (a high type A behaviour pattern was associated with high levels of anxiety). The distribution of TAB among general practitioners was consistent with population norms (mean scores 50.3 (sd 7.4) and 51.86 (sd 7.6) respectively): no gender difference was observed. Finally, low use of "involvement" as a coping strategy was

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also related to high anxiety levels. Involvement means becoming involved and committed to the issues that cause one pressure and coping with them by being aware of the reality of the problem. Analysis showed that general practitioners were significantly less likely to use "involvement" as a coping strategy than the normative population (mean scores 22.5 (sd 3.1) and 23.2 (sd 3.43) respectively, $p < 0.001$): no gender differences existed. Again, number of surgeries practised from emerged as a minor predictor variable. Doctors who operated from more than one surgery were more likely to exhibit higher levels of free floating anxiety.

Depression

Table IV shows two significant stressor predictors of reported levels of depression, including the demands of the job and patients' expectations and the stress of the home-work interface. Low usage of social support as a source of coping was also associated with high levels of depression. Together, these three variables explained 21 per cent of the variance.

Somatic anxiety

Table III indicated that the levels of somatic anxiety among general practitioners were significantly lower than in the general population. Three stressor factors emerged as significant predictors of somatic anxiety accounting for 16 per cent of the variance, including the demands of the job and patients' expectations, the stress of the home-work interface and practice administration and routine medical work.

Managing stress – what can be done?

The purpose of this survey was to examine the impact of the new contract on general practitioners. While it is necessary to acknowledge the limitations of the research (data collection was all self-report, and the research design was cross-sectional rather than longitudinal), the results suggest that higher levels of stress were being reported, together with deterioration in wellbeing, in 1990 compared with 1987 (that is, job dissatisfaction, and increased levels of anxiety and depression were recorded). However, both gender and age differences were noted and these should be taken into account in the planning of stress management activities.

Three main stressor themes emerged, including:

(1) The pressure of the demands of the job and patients' expectations, (including fear of assault during night visits, worry about complaints, the high expectations of patients and adverse publicity in the media). Doctors felt that their patients had not been fully informed about the changes required to fulfil the terms of the new contract and this caused unnecessary conflict between patient and doctor, especially for call-out arrangements.

(2) Role stress which was due to the conflict between the job task and the new role demands, and role ambiguity which accompanied the extensive changes, including the issue of making mistakes and being highly visible. Doctors tended to report that they no longer felt in control of the events which had an impact on their ways of working.

(3) The stress associated with the changes to the organization climate and structure; these included the perception of both the NHS and the practice as the organization, and thus the impact was at both macro and micro levels. Issues such as lack of consultation and communication; mundane administration work; insufficient resources including staff shortages; and lack of feedback about performance were common sources of stress in this category.

These findings indicate that it is necessary to tackle stress at more than one level in order to be effective.

Stress management at the level of the individual

At an individual/team level general practitioners have begun to acknowledge the need to help the individual cope with the strains and pressures of work. At both district and practice levels, stress management workshop activities have been organized using both internal and external facilitators. Usually this involves the preparation and feedback of individual stress profiles (identifying strengths and weaknesses) on the basis of which the individual is able to prepare a personal action plan. Typically this might include:

- balanced lifestyle/improved health and fitness (exercise, diet, reduced use of alcohol/cigarette smoking, etc.), avoiding

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addictions and the importance of leisure and hobbies;
- assertiveness training (recognizing the differences between assertion, submission and aggression);
- time management (balancing and managing time, work and home, and environmental conditions more effectively); recognizing the difference between efficiency and effectiveness. Training in the effective management of meetings has also been a beneficial time management activity;
- team building/effective team working;
- relaxation training (breathing techniques, meditation) to minimize the impact of stress arousal and benefits of gaining control in a potentially stressful situation;
- the management of type A coronary-prone behaviour (learning to change certain aspects of behaviour to reduce the hostility, speed and impatience aspects of TAB and learning to delegate);
- the decision to hold more formal and informal small group discussion sessions on issues which have an impact on the effectiveness of the practice, the partners, and the practice staff. This provides an opportunity to improve support networks for general practitioners. In some practices this has been extended to include social/leisure activities.

As a group, many doctors within certain practice surgeries have recognized the importance of social support. Indeed, this variable emerged as a significant predictor of both job satisfaction and depression among general practitioners. Since the women doctors were observed to use social support as a stress coping strategy and exhibited a better degree of psychological wellbeing and satisfaction than the male doctors, this is an area worthy of more attention. Simply making an effort to meet regularly, either socially and/or professionally, to discuss the issues that might impact on performance or the wellbeing of practice partners, provides the basis of a social support network. More formally, group or area forums would also facilitate this. Only when doctors meet and sit down to discuss their concerns do they begin to realize the extent of their isolation from their peers during day-to-day general practice activities. Indeed, attendance at a stress management workshop often provides the impetus for the initiation of a social support network, particularly if the group adopts a "buddy" system to help one another to achieve a personal action plan.

Stress management at the level of the organization

Small sample in-depth investigations by Myerson[24,32,33] show some attempt to cope with stress by reorganization at a single practice level. Many general practitioners have eliminated the need to become involved in practice administration, paper work and the management of other people and systems, by employing a practice manager, and/or maximizing the use of new technology and computerized record-keeping systems. These, of course, can bring other forms of stress which should not be overlooked. Indeed, to share the costs of these new ways of working effectively, it often means that general practitioners are required to form larger and larger practices, or work from multiple surgeries. Again, this can bring added problems, associated with team working and relationships at work. In fact, the results of this survey clearly indicate that working from more than one surgery has an adverse impact on psychological wellbeing. For these reasons, the introduction of organizational change as a stress management strategy requires careful planning and introduction.

It is not surprising that Myerson[24] found that doctors are likely to use avoidance and evasion techniques when confronted by the difficulties of making changes. However, awareness of the detrimental nature of these maladaptive coping techniques should help to provide some motivation in seeking out more positive ways of dealing with stress.

Help is available for doctors working in group practice, where the workload is high and relationships are impoverished. Interpersonally, strategies such as effective team development/team building can help to alleviate or eliminate stress. It is acknowledged that a team can accomplish much more than the sum of its individual members (and provide a social support network). Effective team-work requires clear objectives, sound procedures, agreed goals, support and trust, appropriate leadership, co-operation rather than conflict. Partnership and staff relationship problems can be addressed by effective team-work, and the workload can be allocated in a democratic manner. Other organizational strategies might include the provision of equipment to

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improve the safety of doctors on call (mobile phone/radio alarm/car alarm).

At a macro-organizational level, stress management can operate by seeking to eliminate or minimize problems. At the highest level (e.g. NHS or FHSA), the general practice model should be re-examined in consultation with those working in general practice. Resistance to change is minimized when an environment of trust and shared commitment is encouraged. General practitioners need to be involved in the decisions and actions which affect them. The concepts of team management could be used at this macro level to examine models of job design, methods of working and the use of new technology, etc.

The communication of a more realistic message to patients regarding their expectations of the general practice doctor would also seem to be necessary. It is suggested that the recent changes to empower "the customer" may have swung too far in the favour of the patient to the detriment of effective general practice, but this proposition requires further investigation. Organizational interventions take time to implement, and so one might consider the introduction of a counselling service and/or an employee assistance programme to help general practitioners and their staff. Some groups and authorities have already adopted these initiatives; others need to be encouraged and helped. However, it is also necessary that general practitioners are encouraged to use these services. This means that a clear message should be delivered, which endorses the view that stress is an acceptable and important topic for discussion. Recognizing problems and dealing with them positively and proactively is the most cost-effective way forward in the management of stress.

Conclusion

Change will continue in the working life of the general practitioner. Most general practitioners would accept that some degree of stress is inevitable for people working in any responsible profession and can be a spur to improved performance. However, it is unacceptable to deny that a problem exists, to turn a blind eye to the numbers of doctors who are leaving the profession or general practice. One general practitioner described this as a "milieu of stress and threat, with some seeking early retirement, some new careers, within a climate of falling job applications into practice life". It must be acknowledged that stress is inevitable, distress is not. Stress management at the level of the individual, the team and the organization can provide tremendous benefits if a controlled, integrated programme is implemented. Informal and progressive general practitioners have taken the initiative to help themselves, but some larger-scale programmes, with evaluation studies, are required in order to document and evaluate the benefits of stress management for general practitioners.

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