

ORIGINAL ARTICLE

Stress and coping in accident and emergency senior house officers

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Objectives: To identify levels of psychological distress in accident and emergency (A&E) senior house officers (SHOs).**Methods:** Questionnaire survey given to SHOs at training sessions.**Measures:** General Health Questionnaire (GHQ) and the Brief COPE.**Results:** Over half of the 37 respondents (51%; 95% CI: 36% to 67%) scored over the threshold for psychological distress on the GHQ. This is considerably higher than for other groups of doctors and for other professional groups. Correlational analysis revealed that the coping style Venting was significantly related to greater anxiety ($r=0.34$; $p<0.05$) and depression ($r=0.33$; $p<0.05$), while the coping style Active was significantly related to lower anxiety ($r=-0.38$; $p<0.05$), somatic complaints ($r=-0.46$; $p<0.001$) and years since qualification ($r=0.40$; $p<0.05$).**Conclusions:** Replicating findings from a study of stress in A&E consultants, this study shows higher levels of overt psychological distress among A&E SHOs than among other groups of doctors. An intervention to improve coping strategies may be useful for this group of doctors.

A recent survey of stress in accident and emergency (A&E) consultants using the General Health Questionnaire (GHQ) found that 44% of the sample scored over the threshold for psychological distress,¹ which is higher than in other studies of doctors in which around 20%–30% score over the threshold.^{2,3} Only two studies have attempted to assess stress in A&E senior house officers (SHOs) but neither used the GHQ, making comparison with other studies difficult. One used a measure that had not been validated and had no norms for comparison,⁴ while the other used the Work Related Strain Inventory, which assesses areas such as productivity and working relationships but does not directly assess psychological distress.⁵ Our study set out to study levels of psychological distress in A&E SHOs using the GHQ.⁶ Information was also collected to identify ways in which SHOs cope in order to identify relations between levels of stress and ways of coping. This information would be useful to plan interventions that will help A&E staff cope better in an intrinsically challenging environment.

METHOD**Subjects and setting**

SHOs from six A&E departments in district general hospitals in north London.

Study design

Questionnaire survey distributed during a single compulsory training session in each hospital, two to six weeks after senior house officers started work. The survey included questions about age, sex, years since qualification, the GHQ 28⁶ and the Brief COPE.⁷

The GHQ is used to measure short-term changes in mental health. The GHQ 28 has 28 items each with four response options from "Not at all" to "Much more than usual". The 28 items are divided into four scales: anxiety (for example, "Have you recently lost much sleep over worry?"), depression (for example, "Have you recently been thinking of yourself as a worthless person?"), health (for example, "Have you recently felt that you are ill?"), and social functioning (for example, "Have you recently felt capable of making decisions about

things?"). The "health" scale is also referred to as the "somatic complaints" scale, as although the precise mechanisms leading to minor physical ailments are not fully known, there is evidence that psychological factors can be a contributing factor.⁸ The standard method of scoring is to assign 0–0–1–1 to the responses. Some studies using the GHQ use a threshold of 5 and above as an indication of psychological distress. This study uses a conservative threshold of 6 and above, as suggested by the World Health Organisation.⁹

The Brief COPE has 28 items with four response options from "I usually don't do this at all" to "I usually do this a lot". There are nine scales: substance misuse, religion, humour, behavioural disengagement, use of support, active coping/ planning (for example, "I try to come up with a strategy about what to do"), venting/self distraction (for example, "I express my negative feelings"), denial/self blame, and acceptance.

Statistical analyses were conducted using Statistical Package for Social Sciences Version 10. Correlational analyses using Pearson's r were carried out to identify statistical relations between the scales of the two questionnaires and the other demographic data collected. The 95% confidence intervals are reported for proportions to aid comparison with other published data.

RESULTS

All of the 37 SHOs approached during their training session completed the questionnaire. These respondents represented 59% of the 64 SHOs employed at that time in the six departments. The remainder were on leave or working the night shift. The sample included 23 (62%) women. The mean age was 27.2 and the mean number of years since qualification was 2.6. Nineteen (51%; 95% CI: 36%–67%) scored above the threshold for psychological distress on the GHQ. Table 1 shows relations between coping strategies, the GHQ total, and scale scores. Active coping was negatively related to anxiety, somatic complaints, and to the total GHQ score and was positively related to years since qualification. Venting was positively related to anxiety and depression. Years since qualification were positively related to social functioning.

Table 1 Correlations between GHQ, coping styles, and years since qualification (using Pearson's *r*)

Coping strategy	GHQ 28	Anxiety	Depression	Somatic complaints	Social functioning	Years since qualification
Substance misuse	0.20	0.35*	0.25	0.08	-0.06	-0.21
Turn to religion	0.02	-0.17	0.16	-0.02	0.24	0.39*
Humour	-0.16	-0.03	-0.13	-0.19	-0.18	-0.38*
Behavioural disengagement	-0.14	-0.23	0.01	-0.05	-0.13	-0.09
Seeking support	-0.17	0.08	-0.28	-0.23	-0.18	0.04
Active	-0.48*	-0.38*	-0.29	-0.46**	-0.31	0.40*
Venting	0.29	0.34*	0.33*	0.08	0.25	-0.03
Denial/blame	0.04	0.15	-0.05	-0.17	0.21	-0.17
Acceptance	-0.28	-0.16	-0.18	-0.35*	-0.11	0.24
Years since qualification	0.30	0.26	0.05	0.21	0.38*	-

p*<0.05, *p*<0.001.

DISCUSSION

Over half of the respondents (51%) scored over the threshold for psychological distress. Although it may not be possible to generalise these results to medical staff at other levels working in A&E, this supports the conclusions of the recent survey of A&E consultants¹ that there is a greater prevalence of psychological distress among doctors working in A&E than in other doctors and other professionals. Furthermore, SHOs constitute the largest proportion of medical staff in an A&E department and therefore it is possible that these high levels of stress may have an impact on the functioning of the department as a whole.

The sample is representative of A&E doctors working in an inner city area and may only be generalisable to hospitals in similar highly populated urban areas. Further studies would be important to identify levels of psychological distress in A&E staff in other areas of the country.

The respondents used a range of coping styles, some of which were associated with more stress than others. In particular, Active coping (that is, problem solving, planning, positive reframing) was related to lower scores on the GHQ, suggesting that it is a useful strategy to reduce or prevent stress; while Venting (that is, expressing negative feelings) was related to higher scores, suggesting it is unhelpful. One possible explanation for this is that problem solving and planning can change the sources of stress, while Venting entails focusing on the emotions aroused by the stressors that may impede adjustment to stressors by preventing planning and problem solving. Alternatively, it may be that only the psychologically robust respondents had the emotional resources to engage in problem solving behaviours. It is unclear how much stress and psychological strain fluctuate and this study considers only one time point during the six month rotation. It would be useful to carry out assessments at different time points, to identify whether any factors over the course of six months lead to increase or decrease of stress levels. Years since qualification were positively related to Active coping. It could therefore be argued that coping strategies improve with experience or that only doctors with those coping mechanisms opt to stay in A&E. To separate the two would require a longer cohort follow up study. However, an intervention may help doctors develop adaptive coping strategies earlier in their careers and may be more efficient than existing processes.

From these results, it could be argued that a helpful intervention would be one that aims to channel emotions resulting from negative experiences constructively into finding solutions. This could involve group sessions such as "Balint Groups", in which events or experiences are brought to the group by the doctors and a facilitator helps the group to examine personal responses and think of positive responses and solutions.¹⁰

A&E departments generally have an activity focus and have to prioritise availability highly, making the work less susceptible to planning. To allocate specific time into SHOs' and others schedules for development of coping skills even for research purposes may be alien to the culture and call for interested and positive leadership from consultants and managers. However, given that the government aims to recruit 183 new A&E consultants by 2004 to increase capacity¹¹ and that there is already an acknowledged difficulty in recruitment and retention of doctors to the specialty,¹² attention to aspects of psychological working conditions in A&E may be essential to meet these targets for recruitment.

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