

Do out-of-hours co-operatives improve general practitioners' health?

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SUMMARY

General practitioners (GPs) have been found to have a higher level of anxiety and depression than hospital managers and consultants. In 1995 and 1998, we surveyed GPs in Buckinghamshire. We found that the development of out-of-hours co-operatives was an important factor in the improvement in GPs' health status.

Keywords: out-of-hours; quality of life; depression.

Introduction

COMPARED with hospital managers and consultants, a higher proportion of general practitioners (GPs) have been shown to have suicidal thoughts and abnormal anxiety and depression scores.¹ Out-of-hours duties have been cited as stressful and have been suggested as a cause for GPs having poorer mental health than population norms.² Qualitative research has suggested that stress in GPs may also have an impact on spouses.³

In September 1995, the government encouraged the development of new ways of covering GPs' out-of-hours duties. When doctors in Buckinghamshire formed three new out-of-hours co-operatives, it was thought that this might reduce stress for participating GPs. It was decided to test the hypothesis using the Short Form 36 health status questionnaire (SF-36). We have found one similar study, which reported reduced stress among 24 GPs after the introduction of a primary care out-of-hours centre.⁴

Method

All Buckinghamshire GPs were sent a questionnaire in 1995 and 1998 by post. Non-responders in 1998 received two postal reminders and a telephone call but in 1995 only one reminder was sent. The scores for each dimension of the SF-36 were computed using the standard formulae. Mean scores were compared and 95% confidence intervals calculated using two sample

t-tests. Comparisons with population norms⁵ for social class I were adjusted for age and sex using linear regression.

Results

In 1998, completed questionnaires were received from 253 (68%) of Buckinghamshire's 374 GPs. The response rate in 1995 was 206 (59%) out of 349 GPs. Of those who had completed the 1995 questionnaire, 63% (130/206) completed a follow-up questionnaire in 1998. In 1995, 20% of GPs reported using a co-operative for out-of-hours cover: in 1998, this had risen to 69%.

Health status is summarised in Table 1. The first column presents 1995 scores for each of the eight dimensions of the SF-36, higher scores representing better health. The second, third, and fourth columns present the same data for 1998 for the sub-group who completed two questionnaires, their differences, 95% confidence intervals, and *P*-values. The final column presents the 1998 data, adjusted for age and sex, subtracting doctor's scores from the population scores for social class I. GPs were asked if being a member of an out-of-hours co-operative had improved their quality of life. On a scale of one ('not at all') to five ('enormously') the mean response was 4.17 and 83% answered four or five.

Discussion

There has been the expected improvement in the health status of GPs between 1995 and 1998, coinciding with an increased use of co-operatives. As up to 40% of the study population did not respond it is possible, but improbable, that the results are due to response bias. The improvement may have been merely coincidental, owing to other changes in working conditions or expectations during the period of the study. An observational study design, such as this one, is unable to demonstrate conclusively cause and effect. However, so many GPs reported that being a member of an out-of-hours co-operative had improved their quality of life that it is likely that this was an important factor in the observed improvements in health status. Nevertheless, this improvement occurred from a comparatively low health status in 1995 and still leaves GPs reporting worse health than their social class I peers in 1998. This confirms the findings of earlier studies and documents an adverse impact on most dimensions of health, except physical function and pain.

The introduction of new arrangements for out-of-hours cover has been associated with an improvement in the health of GPs. However, the fact that GPs have low scores on questions that ask about their ability to work owing to emotional and physical health problems is still a cause for concern. It implies there is scope to improve the delivery of National Health Service care by attending to the psychological and physical well-being of doctors.

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Table 1. Health status of doctors before and after the widespread introduction of out-of-hours co-operatives and their health status compared with social class I population norms, adjusted for age and sex.

	1995 health status (n = 206)	1998 health status of 1995 responders (n = 130)	Difference 1998 minus 1995 (95% confidence interval) (n = 130)	P-value for difference in means (n = 130)	1998 comparison of health status with population norms for social class I adjusted for age and sex (95% confidence interval) (n = 253)
Physical function	93.6	95.1	1.5 (-0.7 to 3.7)	0.174	3.01 (0.40 to 5.61)
Physical role	74.6	84.0	9.4 (2.0 to 16.9)	0.013	-6.58 (-11.27 to -1.90)
Emotional role	63.8	77.4	13.6 (5.7 to 21.6)	0.0008	-10.70 (-15.72 to -5.69)
Social function	78.4	87.1	8.7 (4.2 to 13.2)	0.0002	-5.17 (-8.21 to -2.11)
Pain	79.8	82.6	2.8 (-1.3 to 7.0)	0.176	-3.55 (-6.93 to -0.18)
Mental health	68.2	75.3	7.1 (3.8 to 10.4)	<0.0001	-2.00 (-4.71 to 0.71)
Energy and vitality	52.1	62.9	10.8 (6.7 to 15.0)	<0.0001	-1.67 (-4.78 to 1.43)
General health	69.9	74.9	5.0 (0.4 to 9.5)	0.032	-0.84 (-3.96 to 2.27)

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