

Membership of the Royal College of General Practitioners and recognition of depression in primary care

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SUMMARY

To determine the effect of membership of the Royal College of General Practitioners (RCGP) on recognition of depression, odds ratios, Lowess-smoothed plots, and regression models were produced for recognition rates in a representative sample of 20 818 patient contacts for members and non-members of the RCGP. Membership of the RCGP did not appear to convey greater ability to discriminate between depressed and non-depressed patients, but members were more likely to recognise depression in both depressed and non-depressed individuals.

Keywords: depression; education; Royal College of General Practitioners; clinical skills.

Introduction

DEPRESSION is a common condition in primary care that remains poorly recognised.¹ The Hampshire Depression Project is a large cluster randomised trial of a brief educational intervention designed to improve recognition and outcome of depression in primary care, which failed to demonstrate increased sensitivity or specificity for recognition owing to the intervention.

Membership of the Royal College of General Practitioners (RCGP) reflects successful completion of an extensive period of study that might be expected to improve the recognition of depression to a greater extent than a brief educational intervention, by improving knowledge of its presentation and the skills needed to elicit its symptoms and signs.² This study offers a unique opportunity to explore the effect of membership on the recognition of depression. We compare general practitioners' (GPs') sensitivity and specificity of recognising depression against a well-validated screening questionnaire — the Hospital Anxiety and Depression scale Depression sub-scale (HAD-D).

Methods

The educational intervention in the Hampshire Depression Project did not significantly affect recognition of depression³ and therefore pre- and post-intervention data were merged. One hundred and sixty-four GPs from 55 practices and 20 818 patient contacts were available for the current analysis.

The self-rated HAD-D was used to assess depression. It correlates highly with psychiatric assessments⁴ and has high sensitivity and specificity for clinical depression.⁵ Cut-off scores of 8 for possible depression and 11 for probable depression have been established.⁶

Descriptive statistics for patient, GP, and practice variables were produced for non-members and members of the RCGP. Plots of recognition rates, Lowess-smoothed over the HAD-D score, were produced using a bandwidth of 0.8. Recognition rates were modelled using logistic regression incorporating clustering at the GP level. Uncontrolled odds ratios with confidence intervals at the 95% level of recognition comparing members with non-members of the RCGP were produced and controlled for HAD-D score as a factor and characteristics that differed between members and non-members (sex, time as a GP, list size). Analyses of sensitivity and specificity were also carried out by including interactive terms in models of all cases and by analysing groups with HAD-D score greater than 7, and less than or equal to 7, separately.

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Submitted: 21 June, 2001; Editor's response: 7 September, 2001; final acceptance: 21 January 2002.

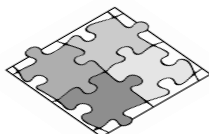
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HOW THIS FITS IN*What do we know?*

Completion of postgraduate training in general practice might be expected to improve GPs' recognition by improving knowledge and skills. This study explores the effect of membership of the RCGP on recognition by comparing GPs' sensitivity and specificity to depression against a well-validated screening questionnaire (HAD-D).

What does this paper add?

Members of the RCGP were more likely to diagnose a patient as depressed than non-members, for both depressed and non-depressed patients, suggesting that they are more sensitive but less specific. Membership does not convey a greater ability to correctly recognise individuals with higher HAD-D scores as depressed.

**Results**

The distributions of age, sex, and employment status were similar in the groups of patients seen by members and non-members, but there were differences in the characteristics of the GPs themselves (Table 1). GPs who were members of the RCGP had worked an average 3.7 fewer years than non-members (12.4 compared with 8.7 years), were more likely to be male (63% compared with 54%) and came from larger practices.

Members of the RCGP were more likely to rate a patient as depressed (15%) than non-members (12%). This pattern emerged to a similar degree with regard to both, depressed patients (members = 38%; non-members = 33%) and patients who were not depressed (members = 9%; non-members = 7%). Whereas members of the RCGP were more sensitive to depressive symptoms, they were less specific. Lowess-smoothed plots of the rates of GP recognition of depression (Figure 1) demonstrated that the increase in rate on the logistic scale among members versus non-members remained constant, regardless of HAD-D score. The lines do not cross on the Lowess plot, suggesting that an interaction does not exist, and thus that membership of the RCGP does not convey a greater ability to correctly recognise individuals with higher scores as depressed and individuals with lower scores as non-depressed.

The odds of a member versus a non-member recognising depression were increased by 30% among depressed

patients, and 34% among non-depressed patients (Table 2). Combining both patient groups, the odds of a member diagnosing depression were increased by 33% (95% CI = 11% to 70%) irrespective of the patient's HAD-D score. Controlling for GP sex, time as a GP, and list size, made no appreciable difference.

Discussion

This study did not include clinical evaluation of the patients' depression status. The use of a HAD-D score greater than 7 to indicate depression is likely to be associated with some false negatives. However, in the context of working general practices a more extensive research instrument or interview would not have been practical, and could have resulted in a restricted group of participants. GPs were asked to complete a simple five-point scale indicating their view of whether the patient was depressed. This method is not identical to unprompted diagnoses seen in everyday practice and may have increased the likelihood of depression being recognised, but would be likely to apply to both members and non-members of the RCGP equally.

Non-members of the RCGP comprise those who have never taken the examination, those who have failed the examination and those who do not continue to pay their subscriptions. It is not possible to distinguish between these three groups in this study. This is unlikely to have affected our conclusions, as those who did not take or who failed the examination both represent groups that have not successfully completed this course of study; and only 5% of GP members of the College drop out from membership each year (McLaughlin J, personal communication, 2001).

In this study, GPs did not see the results of the HAD-D scale prior to the consultation. One possible method of improving recognition of depression would be to ask patients to complete a HAD-D scale in the waiting room and to make this result available to practitioners. However, the interviews that would be needed to validate the diagnosis of depression in patients identified by this screening would take longer than the time most GPs have available, and it is therefore unlikely that GPs' diagnoses will ever become more reliable without spending more time in the consultation. However, the instrument could be beneficial, especially with groups of patients who traditionally do not admit to depressive symptoms.

This and other studies suggest that postgraduate training in clinical skills can change practice and improve recognition of depression in general practice.⁷ However, this study

Table 1. Characteristics of members and non-members of the RCGP

GP characteristics	Non-member (n = 65)	Member (n = 86)
Time (in years) working as GP (mean [SD])	12.4 (7.7)	8.7 (6.3)
Sex (%)		
Male	35/65 (54)	54/86 (63)
Female	30/65 (46)	32/86 (37)
Employment basis (%)		
Full-time	49/65 (75)	65/86 (76)
Part-time	16/65 (25)	21/86 (24)
Jarman Score of practice (mean [SD])	4.29 (19.67)	-0.09 (18.49)
List-size of practice (mean[SD])	8123 (4526)	9463 (5567)

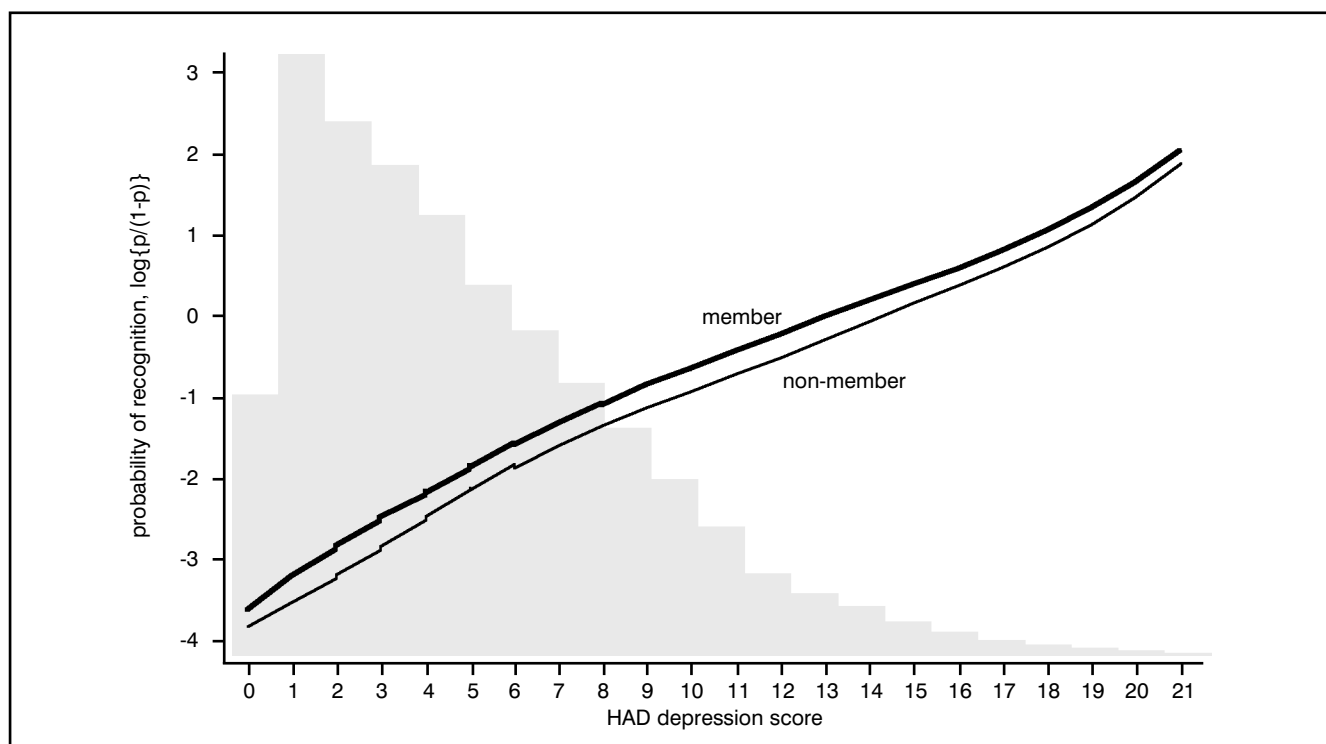


Figure 1. Lowess-smoothed logistic rates of recognition of depression for members and non-members of the RCGP superimposed over the distribution of HAD scores.

Table 2. Recognition of depression by members and non-members of the RCGP in non-depressed (HAD 0–7) and depressed (HAD 8–21) patients.

	All cases (n = 20 818)	Not depressed (n = 16 629)	Depressed (n = 4189)
Member	1765/11 693 (15%)	854/9318 (9%)	911/2375 (38%)
Non-member	1105/9125 (12%)	511/7311 (7%)	594/1814 (33%)
Member/Non-member odds ratio (95% CI)			
Models including all cases			
Controlled for HAD-D score n(%)	1.32 (1.08–1.63)	1.34 (1.04–1.73)	1.30 (1.06–1.60)
Controlled for HAD-D score, GP sex, time, list n(%)	1.37 (1.11–1.70)	1.39 (1.07–1.81)	1.35 (1.09–1.66)
Models for HAD 0 – 7 and 8 – 21 separately			
Uncontrolled n(%)		1.34 (1.05–1.72)	1.28 (1.05–1.55)
Controlled for HAD-D score n(%)		1.34 (1.04–1.73)	1.30 (1.06–1.60)
Controlled for HAD-D score, GP sex, time, list n(%)		1.42 (1.08–1.87)	1.31 (1.07–1.61)

has shown that this is only at the expense of reduced specificity. This effect may be present in other areas where educational interventions have been shown to improve knowledge without affecting outcome, such as asthma care.⁸ Holding membership of the RCGP may result in increased susceptibility to pressures to change practice resulting from published work, and members may need to consider proposed changes more carefully before implementing them in practice.

Acknowledgements

The Hampshire Depression Project was funded by grants from the Medical Research Council, South and West Research and Development Directorate, and Southampton

Community Health Services Trust. The members of the steering committee consisted of: Professor C Thompson, Professor A L Kinmonth, Miss L Stevens, Professor R C Peveler, Dr A Stevens, Dr K J Ostler, Dr R M Pickering, Mr N G Baker, Miss A Henson, Miss J Preece, Miss D Cooper and Professor M J Campbell.

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