Detecting psychological distress: Can general practitioners improve their own performance?

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SUMMARY

Background. *Many studies have suggested that general practitioners fail to detect a substantial minority of their patients who are psychologically distressed, and there is concern about the possible sequelae of this. Individual patients may suffer unresolved problems, and there are potential costs to the health service in consequent recurrent consultations, inappropriate referrals or treatment. Educational interventions based on small groups led by facilitators have been shown to alter the consultation behaviours of general practitioners that are known to be related to accurate detection of psychological distress.*

Aim. *This controlled study aimed to show that, by utilizing a brief self-directed educational intervention focusing on detection of psychological distress, general practitioners can improve their performance significantly. For this purpose, a new educational intervention was designed: the second aim of the study was thus to assess the effectiveness of this specific intervention.*

Method. *An educational intervention was designed which focused on skills relevant to detecting psychological distress, using the principles of reflection on general practitioner performance and consultation skill work. It was designed to be used by individual general practitioners without outside support, using a combination of written background material, feedback on performance and analysis of video material. The effectiveness of the intervention was tested by comparing a trial and control cohort of general practitioners, using detection rates as an outcome measure.*

Results. *The detection rate of the general practitioners who underwent the intervention improved significantly compared with their performance before intervention and with that of the control group.*

Conclusion. *General practitioners can improve their ability to detect psychological distress in their patients utilizing this self-directed educational approach.*

Keywords: educational intervention; mental health; controlled trial.

Introduction

MANY studies since the 1970s have demonstrated an apparent shortfall in the ability of general practitioners to detect psychological problems in routine consultations.[1-3] There is evidence that 30–40% of adult attenders in primary care may be significantly psychologically distressed;[4] however, only about half of these are recognized by their general practitioner, even when they are asked to give an opinion on their patients' psychological state.[5-7]

General practitioners vary in the training they have received in consultation skills,[8] their attitude to psychological disorder,[6] their behaviour during consultations[9,10] and their clinical accuracy.[11] Their detection rate also varies with the sociodemographic characteristics of the patient; for example, middle-aged patients and those with a marital disruption are more likely to be classed as psychologically distressed than younger, older or happily married patients.[6,11] The patients themselves also seem to influence detection by the way in which they present and the degree to which they confirm or deny classic psychological symptoms.[12-14]

Follow-up studies tend to confirm that, although a substantial proportion of patients with psychological distress recover spontaneously,[15] others continue to be distressed,[16] often consulting the general practitioner frequently.[17] A particularly worrying possibility for the patient who presents with somatic manifestations of distress, and whose psychological distress goes unrecognized, is unnecessary medical treatment, inappropriate referral and the potential for chronicity.[18-20]

Two main approaches have been taken to improve the ways in which general practitioners detect mental health problems: comparison of doctor opinion with standard screening instruments; and structured consultation skills training. The former studies have usually taken the form of making the doctor aware of the patient's score on some kind of mental health questionnaire, but their effects on detection and management have been variable.[21-25] Educational interventions have generally used a peer setting in which an expert facilitator runs a series of meetings which focus on altering the consultation behaviours known to correlate with improved rates of detection rates.[26-28] These approaches, although successful in increasing appropriate consultation techniques, are time-intensive and have only rarely looked at the effects on detection rates.[8,29]

The aim of this study was primarily to determine whether general practitioners can improve their own ability to detect psychological distress. For this purpose, a new educational intervention was designed, based on the work cited above,[21-29] plus the principles of 'reflection in learning'[30] and adult learning approaches now espoused in continuing medical education.[31] A secondary aim was thus to evaluate the effectiveness of this self-directed learning-specific approach, using detection rates as an outcome measure.

Method

A research cohort of 19 general practitioners was recruited from those responding to a postal survey sent to a random sample of general practitioner principals in Sheffield in late 1993. General practitioners were invited to express interest in participating in the educational research study. Out of 170 approached (one in two principals), 53 (31%) responded, from whom a group of 20 was recruited. One general practitioner left the cohort before the start of the first data collection.

At least 100 consecutive adult attenders (aged 16 or over) at routine surgeries were asked to complete a brief sociodemographic profile and the General Health Questionnaire (GHQ) (12-item scale) while waiting to see their general practitioner: their score was not made available to the general practitioner at the time of consultation. Consent of the patients studied was sought to video the consultation. Immediately after the consultation, the general practitioner was asked to complete an assess-

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ment form, which included a six-point scale assessing the degree of psychological distress present in the patient (see Table 1).[32,33]

After the baseline data collection, the general practitioners were randomized into trial and control groups. The ten trial general practitioners then went through a brief educational intervention consisting of written theoretical material, assessment data on their own performance and that of their peers in the first data collection, and a checklist to help analyse four of their consultations on video. The video material was selected by the researcher to show four patients who had scored high on the GHQ (GHQ 8/12 or more, a score which makes psychological distress in the patient highly likely), two of whom had been correctly identified by the general practitioner at consultation, and two who were 'missed'. The checklist for video analysis (Table 2) was based on previous teaching models[26,27] and used the principles of reflective learning,[34] inviting the general practitioners to use their consultations as a source of information about their strengths and weaknesses in these particular examples. This work, being a self-directed educational package, was undertaken by the general practitioners at home or in their practice, in their own time, although within an agreed time period of one month after receiving the material. Within 3 months of the intervention, the whole cohort (by this time 19 general practitioners, see above) repeated the data collection procedure to see if their performance as detectors of distress had altered.

Statistical analysis

The results were analysed using *SPSS for Windows*. The choice of statistical tests followed standard statistical texts; for example, measuring association by chi-square where both variables were nominal (e.g. gender and responder status), or *t*-tests where one variable was nominal and the other interval (e.g. age and responder status). In analysing the change data, the Mann–Whitney *U*-test and Wilcoxon rank sum test were used as the non-parametric equivalents to *t*-tests because the study cohort contained fewer than 20 subjects: the Mann–Whitney being used in place of the two-sample *t*-test to compare unmatched trial and control general practitioners, the Wilcoxon rank sum test being used to compare 'before and after' data for each group.

The measure of detection was comparison of the general practitioner opinion (expressed by the six-point assessment scale in Table 1) to the score on the GHQ, as used in previous studies.[1,3–6] This was used to produce a detection rate for each general practitioner in each data collection, which could then be compared for the second and first collections. The GHQ threshold was 3/4,[32] and the general practitioner classed as having detected distress if the patient had been classified as being mildly psychologically distressed or worse (3 or more on the scale).[32] One general practitioner who failed to collect the minimum 100 cases in the second data collection had to be excluded from the final analysis.

Table 1. General practitioner six-point rating scale of psychological distress.

Please indicate the degree of psychological disturbance present in your patient today by circling one appropriate number:	
Normal/stable person with or without physical illness	1
Person with subclinical emotional disturbance	2
Person with mild psychological disturbance	3
Person with moderate psychological disturbance	4
Person with severe psychological disturbance	5
Psychological disturbance warrants admission	6

Results

The mean prevalence of patients scoring above threshold on the GHQ was 39.6% in the first data collection and 40.2% in the second. General practitioners detected a mean of 44% of cases correctly in the first data collection (95% CI 0.21–0.67). The range of detection rates was 15–61% (trial general practitioners, 43%; controls, 45%; difference not statistically significant). After the intervention, the mean proportion of cases detected by the trial general practitioners increased to 52% (range 35–66%, 95% CI 0.21–0.83), while the rating of the control general practitioners deteriorated slightly to 44% (95% CI 0.21–0.77). Using the Mann–Whitney test to compare the proportion of cases detected in the second to those detected in the first, there was a statistically significant difference between trials and controls ($P<0.05$). The trial group showed a statistically significant increase in the proportion of cases they detected in the second data collection compared with the first (Wilcoxon rank sum test $P<0.05$). One general practitioner in each cohort went in the opposite direction to the general trend; i.e. the performance of one trial general practitioner deteriorated and that of one control general practitioner improved in the second data collection.

A second statistical analysis was carried out using Cohen's kappa, which has been used in similar studies.[29] The difference between the trial group and the control group was also statistically significant ($P<0.05$) when this approach was used.

Table 2. Summary general practitioner checklist for analysis of consultations.[a]

Initiation of consultation
Initial impressions of patient
Seating relationship
Greeting
Body posture
Eye contact at start
First statements of doctor and patient
Intitial impressions of own feelings/state of mind (of general practitioner)
Continuation of consultation
Asks general practitioner to analyse ways in which they:
helped the patient to talk (e.g. open questions)
responded to feelings
showed understanding
structured the consultation
Overall observations
Uses visual analogue scales to assess general practitioner's opinion of:
pace of consultation
eye contact with patient
rapport with patient
evidence of listening to patient
exploration of psychological aspects
appropriate balance between 'open' and 'closed' questions
control and focus of the consultation
Reflection on the consultation
Postitive and negative aspects
Barriers and emotions
Possibilities for improvements and concrete alternatives

[a]The checklist spanned four pages, with space for written comment on each consultation. Most 'prompts' for analysis were phrased as questions, the content of which is shown.

Independent variables among the general practitioner and patient cohorts were tested to explore the validity of these findings; i.e. to ensure that the improved performance of the trial general practitioners was associated with the intervention, rather than with another variable. On all general practitioner background variables (listed in Table 3), there were no significant differences between the randomized cohorts. Between the two patient cohorts (2072 in the first and 2764 in the second data collection), no statistically significant differences were found for most of the independent variables (also listed in Table 3; $P<0.05$). The only statistically significant differences between the trial and control patient cohorts were that the patients of the control general practitioners in the second data collection were more likely to be unemployed (χ^2 $P<0.05$), and the trial general practitioners made a recording of a previous mental health problem in a greater proportion of patients in both data collections (χ^2 $P<0.05$). In spite of this, the actual prevalence of high-scoring patients and the general practitioner opinion of their patients' mental state were not significantly different between the cohorts (Table 4).

Multiple regression showed that the most likely predictor of improvement with the intervention was the general practitioner's baseline 'identification index',[6] which represents the tendency of an individual general practitioner to make psychological diagnoses. This was inversely related to improvement with the intervention; for example, the general practitioner who performed worst at the baseline assessment made the greatest improvement. The relationship was statistically significant (regression coefficient, –2.3, SE = 0.77, $P<0.05$, 95% CI –0.8 to –3.8).

Discussion

The results suggest that general practitioners can improve their ability to detect psychological distress in their patients by use of a self-directed educational package, without the need for intensive expert training or outside expertise. The patients in this study were sociodemographically representative of the practice populations, but the general practitioners were less so, being younger than the average for Sheffield and with an over-representation of women. They were also highly motivated, having selected themselves into the study, and endured the demands of a research study over a period of 6–9 months. This could have three implications for the generalizability of the study:

- The general practitioners in the study might already be better than the average at detecting psychological distress. However, their performance as detectors at baseline was similar to findings of previous studies,[5,6] and in this sense, they were representative of their peers.
- A very skilled cohort might have little margin for improvement; however, a significant improvement was in fact obtained.
- Conversely, one might think that general practitioners would require a minimum basic skill set to use an autonomous intervention, but the results showed that the one practitioner in the trial cohort whose performance was lowest at baseline actually achieved the greatest improvement and that previous use of video to analyse consultations did not predict the impact of the intervention. However, the fact that the cohort were younger than average and therefore may have been more familiar with general consultation analysis should be borne in mind, as the educational package relies heavily on this approach.

The differences between the two patient cohorts may also have had an impact on the outcome of the intervention. General practitioners are apparently more likely to detect psychological distress in patients who are unemployed.[5] If this had been an important influence on the general practitioners in this study, the significant rise in unemployment among patients of the control cohort in the second data collection might have improved control GP detection relative to trail GPs. Thus, the difference between the trial and control general practitioners performance after the intervention is even more striking. Conversely, knowledge that a patient has a history of mental health problems has been shown to make general practitioners more likely to think a patient psychologically distressed in the current consultation,[11] which might have helped the general practitioners in the study detect problems in their patients. However, it should be reiterated that the actual prevalence of patients scoring high on the GHQ did not vary, and the difference between the trial and control patients was identical for this variable in both data collections. An alternative explanation for the association of the intervention with the improved performance of the general practitioners in the trial group therefore seems unlikely.

Table 3. Variables studied in general practitioners and patients.

General practitioners: Individual characteristics
Age
Sex
Years in practice
Postgraduate qualifications
Previous training in psychiatric skills
Previous use of video in consultation
Previous use of mental health questionnaires
General practitioners: practice characteristics
List size
Consultations per week
Deprivation status
Full-time or part-time partner status
Patient characteristics
Age
Sex
Employment status
Social class
Background mental health history
Presenting problem
GHQ score
General practitioner's opinion of patient mental state
Management options

Table 4. Summary of significant differences in patient cohorts.

Variable	Trial GP Cohort		Control GP cohort	
	Data collection 1	Data collection 2	Data collection 1	Data collection 2
Unemployment	45	48	46	53
Previous mental health problem	19.4	15.4	19.4	15.4

Figures represent percentage of all patients in each cohort. [a]Significant rise. [b]Significant difference.

The improvement in detection rate achieved was relatively modest — 9% improvement in mean proportion of cases detected, with a statistical power of only 60%, reflected in the wide confidence intervals. Considering that the general practitioners used only four consultations, and that no outside or peer support[35] was involved, this still represents a considerable gain for a very brief intervention. The phenomenon of two general practitioners opposing the general trend in their cohort was an interesting finding: qualitative data from the study gave some explanation for this, which will be presented elsewhere.

Whether the intervention can be effectively used in other contexts remains to be seen, but since it incorporates basic principles of audit (measurement of performance before and after intervention)[36] and continuing medical education (reflection on own practice),[30,31] and has been shown to improve the performance of general practitioners in the study, it appears an effective way to tackle the clinical challenge of detection of psychological distress in primary care attenders. This intervention is potentially usable by any group of primary care workers interested in looking at their performance in this field. Certainly, the brevity and autonomy of the intervention makes it appealing in the multiple demands of general practice.

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