Clinical and patient satisfaction outcomes of a new treatment for somatized mental disorder taught to general practitioners

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SUMMARY

Background. *Patients with mental disorder presenting with medically unexplained symptoms (somatized mental disorder) are common in primary care, difficult to treat, and function poorly in their daily lives.*

Aim. *To examine the effects on patient outcome and satisfaction of a training package for somatized mental disorder delivered to general practitioners (GPs).*

Method. *A prospective study of a before-and-after training study of different cohorts of patients attending eight GPs who acted as their own controls. Patients were stratified according to their belief that the presenting medical symptom had either a partial or completely physical cause.*

Results. *One hundred and three patients in the cohort before training, and 112 patients in the cohort after training, were diagnosed with somatized mental disorder by the study GPs. After training there were significant improvements in interview-rated psychiatric disorder (P = 0.032) at one month, self-rated psychiatric disorder (P = 0.024), and global function (P = 0.020) at three months in patients who believed their symptoms to have a partial physical cause. Training at one-month follow-up reduced depressive symptoms in patients with major depression but did not significantly change any other outcome in patients who believed their symptoms had only a physical cause. There was no overall change in patient satisfaction.*

Conclusion. *Training GPs clinically benefited patients with somatized mental disorder who believe that their symptoms have a partial physical cause.*

Keywords: somatization; mental disorders; general practitioners; outcome measures.

Introduction

ONE-THIRD of patients with mental disorders in primary care present with physical symptoms that they believe have a physical cause.[1,2] They have potentially treatable psychiatric disorders that cause, exacerbate, or maintain the physical symptom or related disability.[1] These patients are said to have somatized mental disorders. Patients with somatized mental disorders lasting longer than two weeks often remain highly distressed and have difficulty with normal family, social, and workplace functioning.[3-7] Some of these patients consume large amounts of primary and secondary health care. [3-6]

A training package has been devised to teach general practitioners (GPs) how to encourage patients with somatized mental disorder to relate physical symptoms to psychosocial problems.[8] The model employed in the training has three components. First, the GP demonstrates an understanding of the patient's complaint by taking a history of related physical, mood, and social factors. Secondly, the GP broadens the agenda by reframing, through negotiation, the physical complaint in terms of the psychosocial information provided by the patient. Thirdly, the GP makes the link between the patient's distress and the physical complaint using a coherent explanation of how psychosocial factors can lead to physical symptoms, using seven suggested models. Training involves the viewing of videotapes, detailed teaching in small groups, and role-play with supervision and feedback supplemented by written background information. We have shown that the training package improves recognition and management skills in general practice trainees.[9,10]

The aim of the study was to determine whether the training package taught to GPs brings about clinical improvement in psychiatric symptoms, psychiatric disorder, physical symptoms, and function in patients who have somatized mental disorder compared with the GP's usual management.

Patients with somatized mental disorder may not welcome their physical symptoms being given a psychological interpretation.[4] Each GP is used as his or her own control, using a before-and after-training design with different cohorts of patients with somatized mental disorder. Patients who do not believe that their symptoms have a completely physical cause ('part' somatizers) may be more amenable to a brief psychological intervention than patients who believe that their symptoms have an entirely physical cause ('true' somatizers) that modifies rather than conflicts with their illness beliefs.[11] The clinical outcome was therefore analysed separately in these two groups. The cost effectiveness of the study has been reported separately.[12]

Method

A representative sample of eight GPs in practice for five years or longer was recruited by sending a circular to every practice in the North West Region. GPs who had held a trainee psychiatry post, or had received this training package before, were excluded. Using a computer-generated random numbers table, 28 GP volunteers were placed in numerical order of contact. Of the first 17 contacted, eight were selected, five decided not to participate, and four were excluded by the investigators (two previously received the training package, one was changing practice, and one practice had no patients with somatized mental disorder in three surgeries). The study was approved by medical ethics com-

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mittees. A power calculation indicated that eight GPs, with 12 patients per GP (50% part somatizers), were required to have a 90% chance of demonstrating a mean difference of 5.00 (SD = 4.75) between the groups in the retrospective psychiatric assessment schedule (retro-PAS) score at one-month follow-up.[13]

A research assistant (HT) attended randomly selected surgeries that were held by the study GPs and were open to all patients. Patients attending the surgery were briefly interviewed in the waiting room. Patients were recruited in a way that was independent of their management by the GP, as shown in Box 1. The inter-rater reliability between two other interviewers (EDG and RM) for 10 jointly rated patients was satisfactory, with a Cohen's kappa of 0.78 ($P<0.001$). Box 1 shows the clinical assessments that were made at baseline, at one-month follow-up, and by post at three-month follow-up (two mailshots separated by two weeks for each patient using stamped addressed envelopes for the return of questionnaires).

True somatizers were identified in the waiting room immediately before the baseline consultation when they ticked the 'physical cause' response box in reply to the question: 'What do you think is the cause of the physical problem you wish to discuss with the doctor today?' Part somatizers ticked the 'physical cause' box, and either the 'don't know' or 'emotional cause' boxes as well. Patients gave their consent to the study to HT verbally in the waiting room, and written informed consent was obtained at interview one month later.

Between the recruitment of the before- and after-training cohorts, the eight study GPs received eight hours of training from three of the authors (RM, LG, and CR) over four weeks.[8,9]

Baseline: consecutive attenders at GP surgery with physical complaint for more than two weeks

Waiting room. Patient completes GHQ-12 ,[14] MOS physical, role and social function scales,[15] distress from self-rated physical symptoms (5-point scale, from 'not at all' to 'extremely'),[16] symptom attributions for physical complaint ('physical cause', 'emotional cause', 'don't know').
Consultation. GP records patient's opinion of (i) presence of mental disorder, and (ii) whether pathology explains all of the patient's physical symptoms and disability.

Eligible for psychiatric interview if:
- Physical complaint lasts for more than two weeks, and patient believes complaint has a physical cause,
- GHQ-12 score is >3 (probable psychiatric case), and
- GP does not have evidence from examination or invest-igations that patient has a physical pathology that explains all symptoms and disability.

One month

Research psychologist (EDG) interviews patients at home using Retro PAS, a standardized psychiatric interview.[17] Presence of psychiatric symptoms and disorder[18] one month before and after consultation are determined.

GHQ-12, MOS physical, role and social function scales, self-rated physical symptoms, illness attributions, patient satisfaction questionnaire are completed.[13]

Psychologist confirms after discussion with psychiatrist (RM, LG) that patient has a psychiatric disorder causing, exacerbating, or maintaining the presenting physical complaint at baseline.

Three months

Patient completes, by post, GHQ-12, MOS physical, role and social function scales, self-rated physical symptoms, illness attributions.

Box 1. Summary of method, before- and after- training cohorts of patients attending GPs.

The ability to manage somatized mental disorder was determined before and after training by having each GP conduct a 10-minute videotaped consultation with a role-played patient. The consultations were viewed by a psychiatrist who had been blinded to the before- and after-training condition of each GP. The psychiatrist rated their skills in the use of the training by using a standardized checklist.[9,10]

Patient outcomes were compared in the before-and-after training cohorts using SPSS for Windows (version 6.0). Mean change scores in physical symptoms, psychiatric symptoms, and global function were derived for each patient between baseline and one-month follow-up, and between baseline and three-month follow-up. The mean change scores were analysed using factorial analysis of variance with the before- and after-training condition entered as the between-subjects factor. Duration of symptoms (which significantly differed between the two training cohorts at baseline), baseline score on each outcome variable, and the identity of the GP were entered as covariates in the factorial analysis of variance with the respective baseline scores for physical symptoms, psychiatric symptoms, and global function. Changes in binary outcome variables between baseline and one-month or three-month follow-up were examined using multiple logistic regression with the training condition, the identity of the GP, and the duration of symptoms entered as independent variables. Changes in ratings of the role-played GP consultations before and after training were examined using Wilcoxon's signed ranks test for quantitative data and McNemar's test for binary variables.

Results

There were eight GPs with a mean age of 42 years (range 34 to 45 years), and the mean time spent in practice was 13 years (range 6 to 18 years). Six GPs were full-time and two were part-time, with a mean list size of 2132 patients (range 1300 to 2800) and a mean of three partners per practice (range 1 to 5). There were three inner-city practices, three urban practices, and two semi-rural practices. Two GPs were fundholders and six were non-fundholders.

Figure 1 shows the progress of patients throughout the study. The before-and-after training cohorts of patients were recruited from April 1994 to January 1995, and from January 1995 to July 1995 respectively. The before- and after-training cohorts did not significantly differ on any demographic or clinical variable (Table 1), except that significantly more patients in the after-training cohort had a duration of their main presenting physical symptom of more than 12 months. Overall, there were 29 different presenting physical symptoms, the most common being back pain (31), fatigue (23), limb pain (19), and abdominal pain (18). The age and sex distribution of the subjects who declined interview at one-month follow-up did not statistically differ from those who were interviewed.

The most common mental disorders[14] in the sample at baseline were: agoraphobia (95 [44%]), major depression (90 [42%]), depressive disorder not otherwise specified (88 [41%]), dysthymia (84 [39%]), generalized anxiety disorder (83 [39%]), social phobia (48 [22%]), simple phobia (47 [22%]), and panic disorder (36 [17%]). No patient was diagnosed with somatized mental disorder by the presence of simple phobia or social phobia alone.

Table 2 shows that there was a significant reduction in all interview-rated psychiatric disorders at one-month follow-up in part somatizers ($P = 0.032$), largely as a result of a significant reduction in less severe depressive disorders (dysthymia and depressive disorder not otherwise specified; $P = 0.047$). There was also a significant reduction in self-rated psychiatric cases on

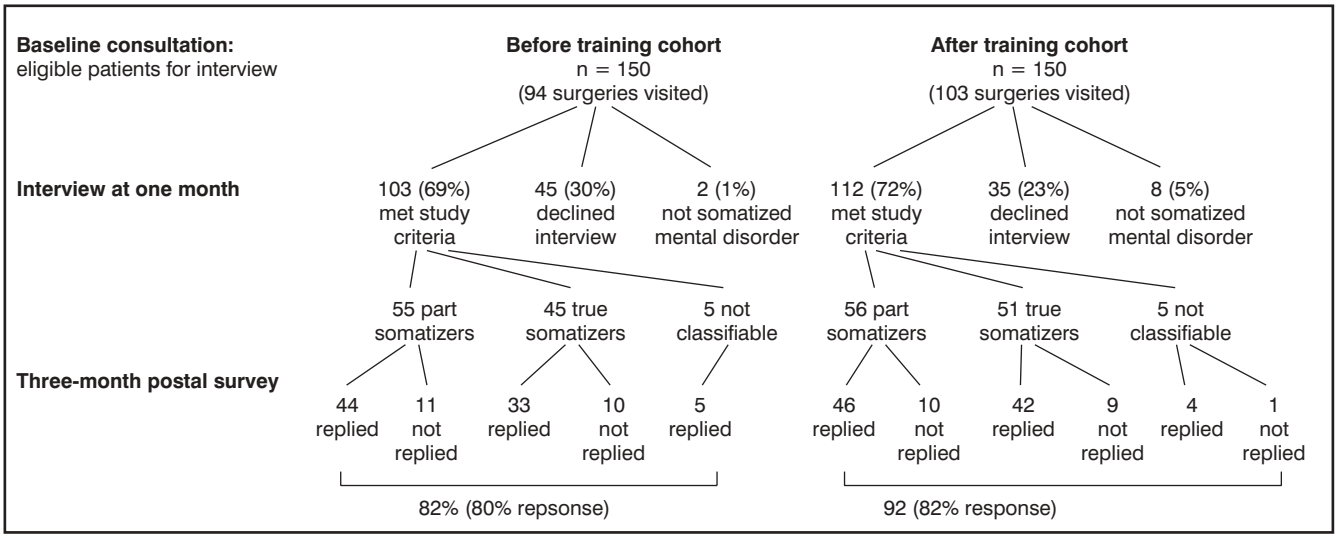

Figure 1. Flow chart describing progress of patients through study in cohort before and after training.

Table 1. Baseline demographic and clinical data of subjects. Data are numbers (percentages) unless otherwise stated.

Variables	Before training (n = 103)	After training (n = 112)
Age (years)	mean = 44.9; SD = 14.3	mean = 48.6; SD = 15.5
Sex (female)	80 (78)	82 (73)
Married/cohabiting	63 (61)	71 (64)
Retired/invalidity	42 (40)	44 (39)
Duration of main symptom		
More than 12 months[a]	36 (35)	63 (56)
More than one month with a mental disorder	83 (81)	80 (71)
Physical symptoms	mean = 3.8; SD = 2.9	mean = 3.8; SD = 2.5

[a] $c^2 = 9.80$; df = 1; P = 0.002.

Table 2. Prevalence (percentage) of psychiatric disorder in patients before and after training groups using multiple logistic regression.

Patient group and variables	Before training	After training	Logistic regression (df = 1)
Part somatizers: one-month follow-up	n = 55	n = 56	
All DSM-IV disorders	52 (95)	46 (82)	Wald = 5.06; P = 0.032
DSM-IV major depression	21 (38)	17 (30)	Wald = 1.10; P = 0.29
DSM-IV other depression	29 (53)	21 (38)	Wald = 3.95; P = 0.047
GHQ-12 case	34 (62)	34 (61)	Wald = 0.40; P = 0.53
Three-month follow-up: GHQ-12 case	27 (61)	18 (39)	Wald = 5.06; P = 0.024
True somatizers: one-month follow-up	n = 43	n = 51	
All DSM-IV disorders	38 (88)	43 (84)	Wald = 0.41; P = 0.53
DSM-IV major depression	16 (37)	9 (18)	Wald = 4.39; P = 0.026
DSM-IV other depression	20 (47)	35 (69)	Wald = 4.97; P = 0.036
GHQ-12 case	29 (67)	32 (63)	Wald = 0.29; P = 0.59
Three-month follow-up: GHQ-12 case	19 (58)	21 (50)	Wald = 0.61; P = 0.44

the General Health Questionnaire-12 among part somatizers at three-month follow-up ($P = 0.024$) but not at one month. Among the true somatizers, there was a significant reduction in major depression ($P = 0.036$) but an increase in less severe depressive disorder (dysthymia and depressive disorder not otherwise specified; $P = 0.026$) at one month. Inspection of the data shows that the prevalence of less severe depression appeared to increase in true somatizers because patients with major depression at baseline developed fewer depressive symptoms at one-month follow-up and were re-classified as less severe depressive disorders, while less severe depressive disorders at baseline did not change over time. There were no significant changes overall in interview-rated or self-rated psychiatric disorders at one-month or three-month follow-up.

Table 3 shows that part somatizers displayed significant improvements after training in global function ($P = 0.020$) at three-month but not at one-month follow-up. There were non-significant trends for improvement after training in interview-rated psychiatric symptoms at three-month follow-up ($P = 0.084$). The main physical symptoms improved equally before and after training at one- and three-month follow-up. Training did not significantly change global function, psychiatric symptoms, or physical symptoms at one- or three-month follow-up in true somatizers.

There were no changes in the high level of patient satisfaction with the GP's management of care in part somatizers after train-

Table 3. Mean (95% confidence interval) of psychiatric symptoms, physical symptoms, and global function of patients before and after training of GPs.

Patient group and variables	Before training	After training	ANOVA
Part somatizers	(n = 55)	(n = 56)	
Retro-PAS (range 0 to 79)			
Baseline	22.6 (19.1–23.3)	16.6 (14.2–19.0)	F(1, 110) = 3.08
One month	20.6 (17.2–24.1)	14.0 (11.2–16.9)	P = 0.083
GHQ-12 (range 0 to 12)			
Baseline	7.7 (6.8–8.6)	6.6 (5.7–7.4)	F(1, 89) = 3.08
One month	5.4 (3.9–6.8)	4.3 (3.2–5.5)	P = 0.084
Three months[a]	5.1 (3.6–6.5)	2.9 (1.8–4.0)	
Main complaint (range 0 to 4)			
Baseline	3.3 (3.1–3.6)	3.0 (2.8–3.3)	
One month	2.2 (1.7–2.6)	1.9 (1.5–2.3)	F(1, 89) = 0.19
Three months[a]	2.2 (1.7–2.6)	1.9 (1.4–2.3)	P = 0.67
Function (range 0 to 100)			
Baseline	44.0 (36.4–51.7)	44.0 (36.1–52.0)	
One month	44.8 (36.5–53.1)	39.5 (30.7–48.3)	F(1, 88) = 5.61
Three months[a]	46.3 (35.3–57.2)	35.6 (25.8–45.3)	P = 0.020
True somatizers	(n = 43)	(n = 51)	
Retro-PAS (range 0 to 79)			
Baseline	19.4 (16.5–22.3)	17.9 (14.9–20.9)	F(1, 93) = 0.07
One month	16.9 (13.8–19.9)	14.8 (12.3–17.6)	P = 0.80
GHQ-12 (range 0 to 12)			
Baseline	6.5 (5.5–7.4)	6.3 (5.4–7.2)	
One month	5.2 (3.7–6.6)	4.5 (3.4–5.7)	F(1, 74) = 0.08
Three months[b]	4.6 (3.1–6.0)	4.6 (3.3–6.0)	P = 0.77
Main complaint (range 0 to 4)			
Baseline	3.4 (3.1–3.7)	3.3 (3.0–3.5)	
One month	2.6 (2.1–3.1)	2.6 (2.2–2.9)	F(1, 73) = 0.34
Three months[b]	2.5 (1.9–3.0)	2.4 (2.0–2.8)	P = 0.56
Function (range 0-100)			
Baseline	57.6 (49.3–65.9)	56.6 (48.0–65.3)	
One month	57.0 (47.5–66.5)	58.0 (49.6–66.4)	F (1, 74) = 0.07
Three months[b]	57.1 (45.4–68.8)	55.3 (45.0–65.7)	P = 0.79

[a]Before training n = 44; after training n = 45. [b]Before training n = 33 for GHQ-12 and MOS global function, n = 32 for main complaint; after training n = 42. Note: Higher scores on all variables indicate worse performance than lower scores on all variables. Factorial ANOVA shown for changes between baseline and three-month follow-up, except for retro-PAS, where changes are between baseline and one-month follow-up.

ing. Significantly fewer true somatizers were satisfied after training with two aspects of the care they received from their GPs, namely that the GP understood the worry of the patient concerning their main physical symptom (before training, 38 [88%] were satisfied; after training, 35 [69%] were satisfied; $\chi^2 = 5.2$; df = 1; $P = 0.02$) and the GP explained the psychological cause of their main physical symptom well (before training, 23 [54%] were satisfied; after training, 14 [28%] were satisfied; $\chi^2 = 6.6$; df = 1; $P = 0.01$). However, 35 (81%) true somatizers before training and 40 (78%) after training stated that they received the help from their GPs that they wanted.

All the GPs were able to study the training package with significant improvements in interview skills, which were summarizing mood cues (median = 0 before training; median = 1 after training; $P = 0.012$), summarizing psychosocial cues (median = 3 per GP before training; median = 5 per GP after training; $P = 0.008$), median number of statements linking physical symptoms and mental disorder (median = 1.5 before training; median = 3.0 after training; $P = 0.03$), and the global quality of these linking statements (one GP good before training; all eight GPs good after training; $P = 0.02$).

Discussion

The study design provides preliminary evidence that training GPs to manage patients with somatized mental disorder improves psychiatric disorder, less severe depressive disorder, and social function in part somatizers. The only change in true somatizers was a reduction in depressive symptoms in patients with more severe depression and a decrease in some specific aspects of patient satisfaction with the GP. However, the study was not a randomized double-blind placebo-controlled treatment trial, so we cannot exclude the possibility that changes in the after-training cohort might have resulted from other interventions; e.g. the Defeat Depression Campaign, seasonal effects, natural improvements in the GP's management of psychiatric disorder over time, or changes in health service provision. Similar numbers of patients were recruited from each GP in each cohort, so before-training differences between GPs in their management of psychiatric disorder are unlikely to explain these results.

Evidence that these improvements resulted from the successful use by GPs of the communication skills taught in the training package, comes from their improvement after training in the specific interview skills required for the use of the training package. GPs did not significantly improve in their general interview skills, nor in their ability to identify mental disorder. They also did not change in their prescribing of antidepressant drugs and psychotropic drugs, nor in the use of mental health services, as a result of training (data not shown). Some data were lost at three-month follow-up but the response rate of 80% was satisfactory, with no significant bias in the demographic or clinical features of patients lost to follow-up.

Definitions of somatized mental disorder rely on clinical judgement, and there is no gold standard. The main advantage of our definition, compared with a widely used previous definition,[1] is that no psychiatric interviewer is required to see the patients on the same day they consult the GP. The main disadvantage is that the GP is involved in both patient selection and treatment. However, GPs did not significantly change in their accuracy in identifying somatizing patients after training (data not shown), so there was no difference in patient selection between the before- and after-training cohorts.

The training package was designed to allow GPs to make physical diagnoses.[8] There was no evidence that GPs were misdiagnosing organic pathology as somatized disorder, or preventing patients from receiving hospital care for serious medical or surgical disorders. However, the short period of follow-up and the limited size of the study, mean that we have to be cautious in drawing conclusions about the effects of the training package on the misdiagnosis of serious organic pathology. If the latter happened to any significant extent, the training might do more harm than good. Although there was some minor degree of dissatisfaction with specific parts of the GP's management among true somatizers, overall patient satisfaction with the GP was high both before and after training. Somatizers prefer to consult their GP rather than mental health services about mental health problems.

There are few previous intervention studies with patients suffering from somatized mental disorder in primary care. Over nine months or more, regular medical review and support by one physician significantly reduced health costs and improved physical function in true somatizers with multiple, medically unexplained symptoms.[6,15] The intervention is untested in British general practice. Our training package might be more effective if GPs used reattribution with standard treatments for depression and anxiety when the uptake of these treatments can be negotiated with patients. A pilot study provided preliminary evidence for the effectiveness of our explanation relating psychosocial problems to their physical symptoms, combined with problem solving.[16] A randomized controlled trial of the training package with a longer follow-up period is therefore now required to examine the clinical effectiveness, cost-effectiveness, and safety of the reattribution training package, coupled with treatments for depression and anxiety disorders.

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