

## Randomised controlled trial of disclosure of emotionally important events in somatisation in primary care

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### Abstract

**Objective** To test whether a disclosure intervention improves subjective health and reduces medical consumption and sick leave in somatising patients in general practice.

**Design** Non-blind randomised controlled trial.

**Setting** 10 general practices in the Netherlands.

**Participants** 161 patients who frequently attended general practice with somatising symptoms.

**Intervention** Patients in the intervention group were visited two to three times and invited to disclose emotionally important events in their life. Control patients received normal care from their general practitioners.

**Main outcome measures** Use of medical services (drugs and healthcare visits), subjective health, and sick leave assessed by self completion questionnaires after 6, 12, and 24 months.

**Results** Of the 161 patients, 137 completed the trial (85%). Both groups were comparable at baseline. The intervention had no effect on the main outcome measures at any point. Intervention patients made one more visit to health care (95% confidence interval -4 to 6); the use of medicines did not change in both groups (-1 to 1); subjective health improved 3.6 points more in the control group (-11.2 to 4.3); and disclosure patients were on sick leave one more week (-1 to 3). Patients often had a depression or anxiety disorder for which they were not receiving adequate care.

**Conclusion** Although the intervention was well received by patients and doctors, disclosure had no effect on the health of somatising patients in general practice.

### Introduction

Patients presenting with functional complaints are common in general practice.<sup>1,2</sup> Many patients present functional complaints only incidentally, whereas others have long term tendencies to seek medical attention for unexplained symptoms, often in relation to psychological stress, depression, or anxiety.<sup>3,4</sup> A few patients are seriously disabled through a long history of many unexplained symptoms, defined as somatisation disorder.<sup>1,5</sup> We adopted Lipowski's definition of somatisation: "A tendency to experience and express

somatic distress and symptoms unaccounted for by pathological findings, to attribute them to physical illness, and to seek medical help for them. It is often assumed that somatisation becomes manifest in response to psychosocial stress brought about by life events that are personally stressful to the individual."<sup>5</sup>

For most patients sharing emotions with someone is acceptable, and self disclosure is culturally embedded.<sup>6</sup> Use of emotional expression techniques, or disclosure, has been shown to improve subjective health, stress related immune measures, and physical symptoms in healthy people and to reduce the number of visits to general practitioners.<sup>7-9</sup> However, the effectiveness of disclosure in somatisation has not been evaluated in a randomised controlled trial.

We developed an intervention focusing on disclosure of traumatic experiences for patients with somatisation in primary care. We studied the effect of adding the disclosure intervention to regular care on use of medical services, subjective health, and sick leave.

### Participants and methods

We conducted a randomised controlled trial in 10 general practices cooperating in the Registration Network of General Practices around Maastricht in the Netherlands.<sup>10</sup> We compared usual care with usual care plus the disclosure intervention. Randomisation was performed at the level of individual patients. The protocol was approved by the ethics committee of the Academic Hospital, Maastricht, and the University of Maastricht.

### Recruitment of patients

We sent a postal questionnaire inquiring about somatisation symptoms to patients aged 20-45 years who frequently attended general practice. Frequent attendance was defined as 15 contacts or more with the doctor, on the patient's initiative, in the past three years.<sup>11</sup> The somatisation questionnaire, contained the 37 somatisation symptoms listed in the *Diagnostic and Statistical Manual of Mental Disorders*, third edition, revised (DSM-III-R), with the relevant follow up questions.<sup>5</sup> Symptoms counted when not explained by organic disease and use of medicines, alcohol, or drugs. Frequently attending patients with five or more somatisation symptoms were eligible for the study.<sup>1 2 12 13</sup>

We excluded patients with the following serious physical or mental diseases: cancer, AIDS, rheumatoid arthritis, multiple sclerosis, dementia, schizophrenia, mental disorder, and psychosis. We included patients with other chronic diseases, such as asthma, osteoarthritis, or cardiovascular diseases so that the sample would remain representative of patients in primary care.

### Treatment conditions

Intervention patients received, in addition to usual care, the disclosure intervention. This consisted of two meetings with a trained “disclosure doctor” at the patient’s home followed by an optional joint consultation including the patient’s general practitioner. In the meetings, participants were invited to disclose emotionally important events in their life. If such events were not mentioned spontaneously, the disclosure doctor asked open questions about family life, health, work situation, and childhood.<sup>14</sup> Towards the end of the first meeting, the disclosure doctor asked a set of screening questions for depressive, anxiety, and somatoform disorders (DSM-IV) and patients kept a diary for six days.

### Randomisation

Eligible patients received information on the trial and were randomised when they agreed to participate. Although the general practitioners knew which patients received the intervention, they were not told which patients participated as controls.

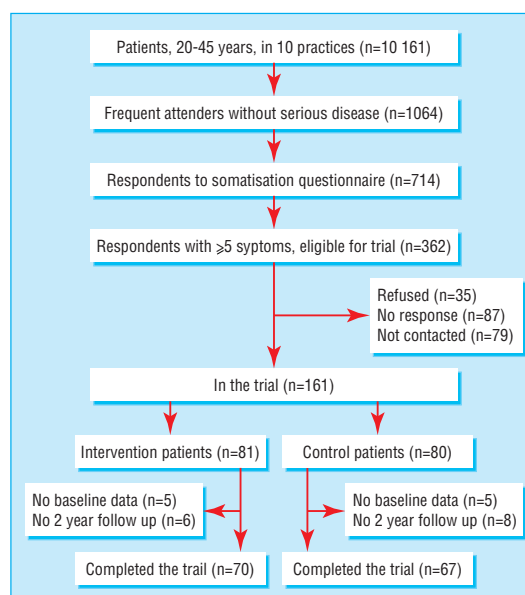
### Outcome measures

At baseline, six months, one year, and two years after entry in the trial, patients completed a questionnaire on the outcome measures. We calculated use of medical services (over the preceding six months) from the total number of visits to the general practitioner and other healthcare workers and the number of different drugs taken daily for at least a week. Subjective health in the previous month (0 = very bad, 100 = excellent) was operationalised as the average of a direct question on health and a combined score of six questions on the influence of symptoms on work, sleep, sports activities, social life, mood, and ruminating about being ill. Sick leave (inability to work or do household chores) was expressed in number of weeks over the preceding six months.

We assessed severity of symptoms with the somatisation, depression, and anxiety and agoraphobia subscales of the symptom check list-90.<sup>15</sup> Patients rated their quality of life on a visual analogue scale (0 = very low, 100 = very high). Doctors rated the somatisation of each patient on a 5 point Likert scale (1 = no somatisation, 5 = severe somatisation).<sup>13</sup> We determined social support as the average support received from the five most important people in the patient’s life (0 = support, 100 = high support).<sup>16</sup> We also assessed the number of life events in the past year,<sup>16</sup> problems in childhood,<sup>14</sup> chronic difficulties,<sup>16</sup> and attitude towards illness at baseline for comparison.

### Statistical analysis

We calculated the sample size required to detect a difference of at least 25% (a worthwhile difference for a time intensive treatment) between the intervention and control condition in use of medical services. With a two sided significance of 5%, a power of 80%, and taking



Profile of trial

into account a dropout rate of up to 25%, we needed 80 patients per group. The analysis was based on intention to treat. The relative effectiveness of the intervention was determined by comparing the change in primary outcome variables between baseline and two years.

## Results

The figure shows the progress of patients through the study: 161 patients were included in the trial.

Altogether 137 patients completed the trial: of the 81 intervention patients, 77 received the disclosure intervention and completed the two meetings with the disclosure doctor. According to the patients and disclosure doctors, 47 patients disclosed emotionally important information during the intervention. Topics of disclosure were childhood abuse (sexual, physical, or mental), alcohol dependency of parents, and loss of a parent or sibling at young age. Quite often patients reported that they had borne onerous household responsibilities as young children. A range of problems in adulthood was disclosed, including physical or sexual abuse, alcoholism, problems in relationships or at work, and social isolation. Patients commonly disclosed combinations of problems—for example, sexual abuse in childhood and depression in later life with marital problems. According to the DSM-IV screening, 34 of the 77 patients had an active depressive or anxiety disorder (16 a depressive disorder, 30 an anxiety disorder).

At the start of the study, both groups had similar demographic and clinical characteristics. Changes in main and subsidiary outcome measures during two years of follow up were not significantly different between the two groups (table). Detailed analyses of visits to specific healthcare professionals and use of different kinds of drugs showed no significant differences (see *BMJ*'s website for full details). Neither successful disclosure nor participation in the joint consultation affected the results.

Change in outcome variables between baseline and follow up at two years. Values are medians (interquartile range)

	Scale range	Disclosure (n=70)		Usual care (n=67)		Difference* (95%CI)
		Baseline	Change at 2 years	Baseline	Change at 2 years	
<b>Main outcome variables</b>						
Use of medical services:						
No of visits all health care	—	5 (3 to 14)	1 (–5 to 9)	7 (3 to 14)	0 (–6 to 7)	1 (–4 to 6)
No of different medicines	—	2 (1 to 3)	0 (–1 to 1)	2 (1 to 2)	0 (–1 to 1)	0 (–1 to 1)
Subjective health	0-100	44 (27 to 60)	0 (–16 to 12)	47 (33 to 63)	5 (–10 to 19)	–3.6 (–11.2 to 4.3)
Sick leave	0-26	2 (0 to 5)	0 (–2 to 4)	2 (0 to 6)	0 (–2 to 2)	1 (–1 to 3)
<b>Subsidiary variables</b>						
Quality of life	0-100	50 (36 to 75)	0 (–14 to 24)	51 (40 to 73)	4 (–8 to 19)	–1 (–10 to 8)
Symptom check list score:						
Somatisation	0-48	20 (16 to 25)	0 (–6 to 5)	22 (17 to 27)	0 (–5 to 5)	0 (–3 to 3)
Depression	0-64	22 (13 to 33)	–2 (–8 to 4)	22 (15 to 35)	–2 (–10 to 5)	1 (–4 to 5)
Anxiety and agoraphobia	0-68	15 (9 to 23)	–2 (–5 to 2)	17 (10 to 31)	0 (–5 to 3)	–1 (–3 to 2)
GP's assessment of somatisation	1-5	3.7 (3.0 to 5.0)	0.0 (–1.0 to 0.0)	3.7 (3.0 to 5.0)	0.0 (–1.0 to 1.0)	0.0 (–1.0 to 1.0)
Social support	0-100	66 (59 to 71)	–1 (–7 to 8)	65 (58 to 70)	2 (–5 to 10)	–0.9 (–5.0 to 2.9)

\*Hodges-Lehman estimate of shift of difference between intervention and control groups in change of outcome variables (2 years to baseline) based on Mann-Whitney U test.

In general, the disclosure intervention was well received: 57 out of 77 patients judged it positive, and at two years of follow up more intervention than control patients thought participation in the study had changed their health favourably (mean score 51 in intervention patients versus 47 in control patients (scale 0-100),  $P=0.11$ ). At six and 12 months there was also no difference between the groups on this measure. One patient criticised the disclosure intervention; she refused to be confronted with her childhood story again.

## Discussion

The disclosure intervention had no effect on use of medical services, subjective health, or sick leave in somatising patients in general practice. We found no effect in patients who disclosed important information or in subgroups of patients with strong somatisation tendencies, depression, anxiety, or a traumatic childhood.

### Design of intervention and study

The technique, duration, and frequency of our intervention were in accordance with the recommendations in a recent meta-analysis on emotional expression.<sup>7</sup> The review found that short writing tasks may improve subjective health and have a smaller effect on health behaviours,<sup>7</sup> although this last finding has been disputed.<sup>8</sup>

Although our trial was not blinded, the general practitioners did not identify most of their control patients. We cannot rule out, however, that some control patients may have benefited from their doctor's participation in the trial, thereby masking the effect of disclosure.

### Explanation for findings

Somatising patients have an established pattern of medical consumption, which may be hard to alter with a short disclosure intervention. Their symptoms may be independent of earlier life experiences. A more sustained disclosure intervention, allowing patients to link symptoms to earlier traumatic events and process this trauma, might give better results.

About 40% of patients in the intervention group did not disclose information. These patients may not have had anything to disclose or were not ready to share their experiences. In addition, some patients had

already shared their traumatic experiences with their general practitioner, and the intervention may have had limited effect in this group. All participants knew the aim and method of the study through the informed consent procedure, and patients not willing to share their traumatic experiences may have refused to participate. It remains unclear whether non-participating patients would benefit from a disclosure intervention if offered at another moment or in a different way.

We found an alarmingly high prevalence of depressive and anxiety disorders in the intervention group. The participating general practitioners had rarely registered these psychiatric disorders, and few patients had received adequate treatment. Instead, patients tended to visit specialists and physiotherapists and were taking painkillers. Strategies focusing on Lipowski's definition of somatisation,<sup>3</sup> such as illness attributions and use of health care have been partially effective<sup>17–19</sup> and may give better results than disclosure of traumatic experiences. Personal interests of doctors in their patients' life stories remains crucial to communication<sup>20–22</sup> but will probably not in itself reduce somatisation.

As up to 5% of patients in general practice are frequent attenders with somatising symptoms, further research is needed to determine effective strategies for treatment.

### What is already known on this topic

Up to 5% of patients in general practice attend frequently with somatising symptoms

Emotional expression techniques have been shown to have favourable effects on subjective health, visits to the doctor, and symptoms in healthy people

### What this study adds

A disclosure intervention does not improve somatisation in primary care

About 45% of patients had an anxiety or depressive disorder, which was often unrecognised

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## Primary care groups

# Can primary care groups and trusts improve health?

Steve Gillam, Stephen Abbott, Jennifer Banks-Smith

The last of the core functions vested in primary care groups and trusts is to improve the health of the population and address inequalities in health; this is possibly their biggest challenge. The term health improvement has various meanings in government documents, reflecting the degree to which core NHS activity is or is not seen as central.<sup>1</sup> At one end of the spectrum the Commission for Health Improvement is concerned primarily with the quality of health service organisations. At the other end early guidance for primary care groups defined their function as being to "improve the health of, and address inequalities in, their community."<sup>2</sup> This is explicitly distinguished from developing primary care and community care and commissioning hospital services. Health improvement includes activities to promote health that occur outside the NHS (for example, in workplaces and schools) as well as activities that address social, economic, and environmental influences on health (for example, housing, transport, employment, and community development). In this paper, we use health improvement to indicate an approach to the health of a population rather than to illness, a perspective that is new to primary care.

Attempts to orient general practitioners towards the health of their registered populations have a long history in the United Kingdom.<sup>3</sup> At the heart of the relation between general practice and public health is an ethical conflict between individual freedom and

## Summary points

Primary care groups and trusts are charged with improving the health of their populations through activities that reach beyond the NHS

Groups and trusts must also address social, economic, and environmental determinants of inequalities in health

Groups and trusts have made progress in developing their organisational ability to undertake this role but face shortages of staff with skills in areas such as public health

They have begun to establish working relations with local authorities and voluntary organisations to support initiatives to promote health

Most groups and trusts are funding projects led by organisations outside the NHS

Groups and trusts will need to be persistent to ensure that the population's health, rather than the organisation of health care, remains a central focus of the new NHS

## This is the last in a series of five articles

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