

# Factors leading to the reporting of 'functional' somatic symptoms by general practice attenders

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**SUMMARY.** *The aim of this study was to examine the prevalence of 'functional' somatic symptoms in general practice and the factors associated with reporting these symptoms. During a one month period, all attenders aged 16 years and over at a general practice near Leeds were screened for functional somatic symptoms using the Bradford somatic inventory. The general practitioner recorded the patients' personal data and diagnostic assessment. Data were analysed from 670 Europid patients who completed the Bradford somatic inventory at their first attendance during the month. Higher mean numbers of functional somatic symptoms were found in patients with psychiatric and functional syndromes than in patients with organic illness or in well patients. The symptom score on the Bradford somatic inventory was significantly related to five factors: current anxious mood, current depressed mood, sex, chronic physical illness in a parent and a history of depressive illness. Using multiple linear regression analysis, all five factors were found to be independent predictors of symptom scores on the Bradford somatic inventory. This study highlights the multifactorial aetiology of functional somatic symptoms reported by general practice attenders.*

## Introduction

**P**ATIENTS of all ethnic groups commonly present to general practitioners with somatic complaints for which no physical cause is found. General practitioners are faced daily with the task of distinguishing between symptoms of organic disease and 'functional' symptoms of different kinds. Sometimes it is possible to identify psychosocial stressors to account for psychophysiological symptoms. Other patients exhibit 'abnormal illness behaviour' in the context of apparently trivial symptomatology.

There have been several recent reviews of somatic presentations of psychiatric syndromes in general practice and hospital settings.<sup>1-4</sup> Bridges and Goldberg<sup>5</sup> found that 33% of patients attending general practitioners with a new problem met DSM-III criteria<sup>6</sup> for a psychiatric disorder, and a further 13% had an adjustment disorder. Robinson and Granfield<sup>7</sup> compared a group of frequent consulters in primary care with a group of infrequent consulters, and found that the former reported more functional somatic symptoms and were more inclined to negative mood. Brown<sup>8</sup> made a detailed study of 32 frequent consulters with unexplained physical symptoms at an Edinburgh general

practice and found that half met criteria for a major depressive episode (DSM-III diagnosis) or a somatoform disorder (group of DSM-III diagnoses).

It is widely acknowledged that medically unexplained somatic symptoms are common in all types of patients seen by general practitioners, yet there is a lack of descriptive clinical data.<sup>9</sup> The purpose of this study was to examine the prevalence of functional somatic symptoms in general practice and the factors associated with reporting these symptoms.

A new questionnaire, the 44-item Bradford somatic inventory,<sup>10</sup> has been developed as a multi-ethnic inventory of functional somatic symptoms. Items were obtained by means of a systematic search through casenotes of English and Pakistani psychiatric patients, diagnosed as suffering from anxiety, depression, hypochondriasis or hysteria. Factor analyses yielded four principal symptom clusters: fatigue and symptoms in the head, chest and heart, and abdomen.<sup>10</sup> There are three choices for each item: absent, present on less than 15 days during the past month or present on more than 15 days during the past month. These score 0, 1 and 2, respectively.

## Method

The study practice has three partners and a list of 5000 patients. It serves an area of Pudsey and surrounding areas of the Leeds and Bradford conurbation. The area is socially mixed, with predominantly owner-occupied housing (social classes 2 and 3) but also with extremes of affluence and deprivation. Approximately 10% of the practice population is south Asian.

The study population consisted of all patients aged 16 years and over attending the practice during a one month period in November/December 1988. On arrival, the receptionist explained briefly to each patient the purpose of the study and gained their consent to participate. The patients were asked to complete the 44-item version of the Bradford somatic inventory in the waiting room and to hand it back to the receptionist. Asian patients were given the choice of Urdu or English versions. If the patient experienced difficulties in completing the form the receptionist wrote a note to this effect on the form, stating the reason for the difficulty where possible, for example, dementia or obvious intoxication with alcohol or drugs. At the end of the consultation, the general practitioner completed a proforma for each patient, recording personal identification data, marital status, occupational group, pregnancy status, chronic illness in either parent, past episode of depressive illness requiring treatment and diagnostic assessment (stating level of confidence — confident or in some doubt) using nine categories of principal diagnosis or reason for attending (including other or uncertain). These nine categories were derived from the work of Brown<sup>8</sup> and modified in a pilot study, in which each general practitioner classified 10 patients and the classifications were then discussed by all the authors. If more than one diagnosis or reason for attending was recorded, the general practitioner ranked these in order of importance. During the study, any patients who were difficult to categorize were discussed by the authors. The proforma asked for the number of surgery attendances and home visits in the past 12 months; the general practitioner obtained this information from the patients' notes. The doctor also completed visual analogue ratings of depressed mood, anxious mood and psychosocial stress using 10 cm lines. Psychosocial stress

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was only rated if the doctor had sufficient detailed knowledge of the patient's circumstances. The general practitioner did not have access to the patient's Bradford somatic inventory.

The mean scores on the Bradford somatic inventory were obtained for each category of diagnosis or reason for attending. Rank order correlations between each patient's score on the Bradford somatic inventory and the general practitioner's estimate of depressed mood, anxious mood and psychosocial stress were calculated. Rank order correlation coefficients were also calculated between inventory scores and age, and number of surgery attendances and home visits. A breakdown of mean scores on the Bradford somatic inventory was made according to sex, occupational group and whether the patient had a history of depressive illness or had a parent suffering from a chronic physical illness. In addition, the results for occupational group and diagnostic group were cross-tabulated, and rank order correlations were obtained between occupational group and depressed mood, anxious mood and psychosocial stress.

A multiple linear regression model was constructed using the symptom score on the Bradford somatic inventory as the dependent variable, and factors that were significantly associated with inventory scores as the predictor variables, in order to determine which variables independently contributed to the variance in scores. In the stepwise multiple regression procedure, the predictor variable with the highest significant correlation with the dependent variable is entered first. The second variable to be entered is the one that will result in the largest significant increase in the total amount of variance explained, over and above what the first variable contributed. This procedure continues until every variable that can add significantly to the amount of variance explained is included. At the end of each step, every variable is reassessed, to test whether its contribution is still significant, given the effect of all the other variables in the equation: if not, that variable is removed from the regression equation.

Statistical analysis was carried out using the statistical package for the social sciences (SPSSX)<sup>11</sup> on the Amdahl mainframe computer at the University of Leeds. Each patient was identified by National Health Service number and not by name.

## Results

During the four weeks of the study 1044 patients aged 16 years and over attended the practice. This represented 821 individual patients — 639 attended once, 154 twice and 28 three times or more. Of the 821 patients, 37% were men and 63% women, while 761 patients (93%) were Europid, 51 (6%) Asian and two Afro-Caribbean (data missing for seven patients). Fifteen per cent of the patients were single, 64% married or living with a partner and 13% were widowed, separated or divorced (data

missing for 7%). The largest occupational group was skilled workers (34%), followed by unskilled workers (17%), housewives (10%), and professionals or business executives (9%); few patients owned small businesses (employing up to 10 people) (3%) or were unemployed (2%) or full-time students (2%); 20% were retired or pensioners (data missing for 3%).

Several elderly patients could not complete the inventory because they had not brought their glasses with them; while some of the Asian patients were unable to read English or Urdu. The forms of patients with dementia, or acute alcohol or drug intoxication were excluded. Completed Bradford somatic inventories were obtained from 710 patients (86%) at their first attendance during the study period. Complete data from the Bradford somatic inventory was available for only 39 Asian patients and this was not therefore analysed in detail; one patient was Afro-Caribbean. Detailed analysis was therefore undertaken on the data from 670 Europid patients.

### Diagnosis/reason for attendance

Table 1 shows the mean age and scores on the Bradford somatic inventory of the patients in each category of principal diagnosis or reason for attendance together with the percentage of men. Patients in whom there was 'some doubt' about organic illness had significantly higher scores than those in whom the doctor was 'confident' of the diagnosis ( $t=2.88$ , 353 df,  $P<0.01$ ), suggesting that many patients in the former group had non-organic symptoms. Thus, the results for these two groups of patients are given separately. Patients in the psychiatric and functional categories had consistently higher mean scores than those with probable organic illnesses. Women attending antenatal clinics or the general practice surgery during pregnancy also had high scores on the inventory.

For further data analysis patients in five of the diagnostic categories were assigned to one of three diagnostic groups: (1) physical symptoms clearly caused by organic illness; (2) physical symptoms without organic basis, prominent psychological symptoms/signs and social or marital problems; and (3) well patients/contraception/immunization. Patients with more than one diagnosis or reason for attendance recorded were excluded at this point.

### Factors associated with symptom scores

There was no overall correlation between age and score on the Bradford somatic inventory (Spearman's rho =  $-0.06$ , NS), nor within any of the three diagnostic groups (organic, psychiatric/functional and well patient) when each was considered separately.

A breakdown of mean scores by sex showed major differences between the three diagnostic groups (Table 2). Women who had

Table 1. Characteristics of patients in different categories of principal diagnosis or reason for attendance.

Category	No. of patients <sup>a</sup>	% of men	Mean age in years (SD)	Mean BSI score (SD)
Physical symptoms clearly caused by organic illness	285	42	42.9 (16.5)	10.9 (9.0)
Physical symptoms possibly caused by organic illness	70	36	43.0 (14.6)	14.3 (8.8)
Physical symptoms without organic basis	38	34	45.0 (17.7)	17.2 (13.4)
Prominent psychological symptoms or signs	30	30	47.1 (14.6)	16.4 (10.2)
Social or marital problems	7	0	41.4 (9.8)	13.7 (9.7)
Routine visit, with chronic physical illness	98	51	62.0 (12.3)	11.1 (9.6)
Recovered from physical illness	11	64	47.4 (14.9)	11.1 (5.5)
Recovered from psychiatric illness	15	27	53.1 (12.4)	15.1 (14.2)
Antenatal clinics/visits <sup>b</sup>	21	0	25.6 (4.0)	17.6 (12.1)
Well patient/contraception/immunization	84	17	37.8 (16.0)	8.6 (7.9)

<sup>a</sup> Other or uncertain diagnosis for 11 patients. <sup>b</sup> Pregnancy was recorded on the proforma allowing the category 'antenatal clinics/visits' to be created later. SD = standard deviation. BSI = 44-item version of the Bradford somatic inventory.

**Table 2.** Scores on the Bradford somatic inventory (BSI) by diagnostic group and by sex.

Diagnostic group	Mean BSI score (SD)		
	All patients	Men	Women
Organic	10.7 (9.0) (n = 260)	8.4 (7.8) (n = 111)	12.5 (9.4) (n = 149)
Psychiatric/ functional	15.3 (12.1) (n = 71)	15.5 (11.6) (n = 22)	15.2 (12.5) (n = 49)
Well patient	8.1 (7.8) (n = 78)	4.2 (5.5) (n = 13)	8.9 (8.0) (n = 65)
All groups	11.0 (9.6) (n = 409)	9.1 (8.7) (n = 146)	12.1 (9.9) (n = 263)

SD = standard deviation. *n* = number of patients in group. Two-way analysis of variance, main effects: diagnostic group,  $F = 12.54$ , 2 df,  $P < 0.001$ ; sex,  $F = 12.38$ , 1 df,  $P < 0.001$ ; 2-way interaction,  $F = 1.54$ , 2 df, NS. *t*-tests for men versus women: organic,  $t = 3.76$ ,  $P < 0.001$ ; psychiatric/functional,  $t = 0.11$ , NS; well patient,  $t = 2.01$ ,  $P < 0.05$ .

an organic diagnosis or were well patients reported significantly more symptoms than men in these groups, but patients of both sexes with a psychiatric/functional diagnosis had similar scores. These differences were partly accounted for by higher scores on anxious and depressed mood among women who had an organic diagnosis or were well patients.

There was no significant difference in mean scores on the Bradford somatic inventory between the three principal occupational categories (Table 3). Cross-tabulation of diagnostic group and occupational group showed no significant departure from predicted frequencies (3 x 3 chi square = 3.72, 4 df, NS). There was a significant inverse correlation ( $\rho = -0.29$ ,  $P < 0.01$ ) between occupational group and psychosocial stress, but not with anxious or depressed mood.

There were significant overall correlations between scores on the Bradford somatic inventory and the general practitioner's estimate of depressed mood ( $\rho = 0.24$ ,  $P < 0.001$ ), anxious mood ( $\rho = 0.18$ ,  $P < 0.001$ ) and psychosocial stress (rated for 214 patients,  $\rho = 0.18$ ,  $P < 0.01$ ). The strength of these correlations varied within each of the three diagnostic groups. Thus,

**Table 3.** Scores on the Bradford somatic inventory (BSI) by occupation, previous depression and parental illness.

	No. of patients	Mean BSI score (SD)
<b>Occupational group</b>		
Professional or business executive	48	11.5 (8.9)
Skilled worker	158	11.3 (9.5)
Unskilled worker	73	10.0 (10.2)
		$F = 0.54$ , NS <sup>a</sup>
<b>Previous episode of depression requiring treatment<sup>b</sup></b>		
None	488	10.6 (8.7)
One episode	90	15.3 (12.6)
Two or more episodes	72	16.8 (9.9)
		$F = 19.94$ , $P < 0.001$ <sup>a</sup>
<b>Chronic physical illness in either parent<sup>c</sup></b>		
None known	494	11.2 (9.4)
Yes	146	14.1 (10.1)
		$t = 3.19$ , $P < 0.01$ <sup>d</sup>

<sup>a</sup> Analysis of variance. <sup>b</sup> Data unavailable for 20 patients. <sup>c</sup> Data unavailable for 30 patients. <sup>d</sup> *t*-test.

psychosocial stress correlated highly with scores in patients with a psychiatric/functional diagnosis ( $\rho = 0.55$ ,  $P < 0.01$ ) but did not correlate at all in well patients; for patients with an organic diagnosis,  $\rho = 0.25$ ,  $P < 0.01$ . Anxious mood correlated with scores in patients with a psychiatric/functional diagnosis ( $\rho = 0.31$ ,  $P < 0.01$ ) but not in patients who had an organic diagnosis or in well patients. Depressed mood correlated with scores consistently in all groups.

A breakdown of mean scores on the Bradford somatic inventory according to history of depressive illness requiring treatment, and chronic physical illness in either parent, showed significant inter-group differences (Table 3). However, within the three diagnostic groups, a history of depressive illness was associated with higher scores only in the group who had an organic diagnosis ( $F = 7.51$ , 2 df,  $P < 0.001$ ), and parental illness was associated with higher scores only among patients with a psychiatric/functional diagnosis ( $t = 2.17$ , 59 df,  $P < 0.05$ ).

### Multiple linear regression analysis

A linear regression model was constructed using the inventory score as the dependent variable, and five factors that were significantly associated with scores as the predictor variables. Three of these were 'dummy' rather than continuous variables:<sup>11</sup> sex, previous depressive illness, and history of parental illness. The estimate of psychosocial stress was omitted because data were missing for a large number of patients.

All five variables were found in the final regression equation, indicating that they all contributed independently to scores on the Bradford somatic inventory (Table 4). Since the variables are measured in different units, the partial regression coefficients (*B*) cannot be used as indicators of the relative importance of each variable.<sup>11</sup>

**Table 4.** Multiple linear regression analysis using the scores on the Bradford somatic inventory as the dependent variable (*n* = 670 patients).

Predictor variable	<i>B</i> <sup>a</sup>	$\beta$ <sup>b</sup>	<i>T</i> <sup>c</sup>	<i>P</i> <sup>d</sup>
Previous episode of depression	1.810	0.126	2.969	<0.01
Depressed mood	0.124	0.134	3.131	<0.01
Anxious mood	0.087	0.114	2.790	<0.01
Sex <sup>e</sup>	1.969	0.099	2.552	<0.05
Parental illness	2.091	0.092	2.392	<0.05
Constant	5.998	—	4.544	<0.001

<sup>a</sup> Partial regression coefficient (slope of the least squares regression line). <sup>b</sup> Standardized regression coefficient, obtained when all the variables are expressed in standardized form. <sup>c</sup> Used to test the hypothesis that the slope of the regression line is 0. <sup>d</sup> Represents the probability that the slope is 0. <sup>e</sup> Male = 1, female = 2.

### Number of surgery attendances and home visits

The total number of surgery attendances and home visits over the previous 12 months correlated significantly with scores on the Bradford somatic inventory ( $\rho = 0.25$ ,  $P < 0.001$ ). This applied to all three diagnostic groups, the highest correlation being found in patients with an organic diagnosis ( $\rho = 0.35$ ,  $P < 0.001$ ).

### Asian patients

Among the 39 Asian patients the inventory score correlated significantly with depressed mood ( $\rho = 0.29$ ,  $P < 0.05$ ), anxious mood ( $\rho = 0.32$ ,  $P < 0.05$ ), attendances over 12 months ( $\rho = 0.37$ ,  $P < 0.05$ ) and age of the patient ( $\rho = 0.29$ ,  $P < 0.05$ ). The score correlated with psychosocial stress (15 patients,  $\rho$

= 0.31) but this did not reach statistical significance. The 25 Asian women had a higher mean inventory score than the 14 Asian men (22.9 versus 14.2) but this just failed to reach statistical significance. Too few Asian patients had a history of depressive illness or of parental ill-health for any conclusions to be drawn with respect to these factors. There were also too few Asian patients in each occupational group to make the analysis of inventory scores feasible.

## Discussion

This study has shown that functional somatic symptoms are common in all categories of patient attending the study practice. However, high scores on the Bradford somatic inventory were found in patients with psychiatric and functional syndromes. Among patients with organic illness, symptoms identified by the inventory could represent either symptoms of physical illness or the physiological accompaniments of a mood disorder complicating a physical illness. Pregnant women also reported large numbers of somatic symptoms, which probably reflects the normal experiences of pregnancy, for example, abdominal discomfort, breathlessness and fatigue.

The principal finding is that a large number of factors predict scores on the Bradford somatic inventory, not simply the severity of current anxious or depressed mood. A history of chronic physical illness in either parent, for example, was significantly associated with higher scores in patients with psychiatric/functional diagnoses. It would be expected that children growing up in households where life revolved around a physically ill parent would focus more on somatic symptoms and learn that the reporting of physical symptoms was an effective way of eliciting sympathy, support and care.

The total number of surgery attendances and home visits over the previous 12 months was used as a measure of help-seeking behaviour, and was found to correlate with scores in all three patient groups. This echoes the findings of Robinson and Granfield<sup>7</sup> that frequent consulters in primary medical care report more functional symptoms (particularly upper respiratory, gastrointestinal and back troubles) than do infrequent consulters. Brown<sup>8</sup> also found a strong relationship between frequency of attendance and the presence of medically unexplained somatic symptoms.

The theory of 'somatization' is that some patients convert their psychological distress into somatic symptoms, while those who present with psychological complaints do not.<sup>12</sup> This theory receives no support from this study; patients who presented with prominent psychological symptoms or signs reported a similar number of somatic symptoms to those who presented with physical symptoms without organic basis.

Individuals who are 'psychologically-minded' may readily subsume their symptoms of autonomic arousal and muscular tension under a concept of emotional distress, and not attach any special significance to them. Other emotionally-distressed patients present to general practitioners with somatic symptoms; yet many of these respond to reattribution of these symptoms as part of a functional disturbance.<sup>13,14</sup> A few patients may resist such interpretations and continue to attribute their functional symptoms to physical illness.

Studies of somatization disorder — multiple somatic complaints without organic basis starting before the age of 30 years<sup>6</sup> — focus on patients at the most severe end of the spectrum of functional somatic complaints.<sup>15,16</sup> The findings of this study show that these symptoms are widely distributed among patients attending a general practice, and suggest that any isolation of somatization disorder as a discrete entity is arbitrary.

Crandell and Dohrenwend suggested that people of lower social class and poorer education tend to express emotional

distress in somatic terms.<sup>17</sup> Mechanic also concluded that patients who express psychological distress through physical language tend to be uneducated or to come from cultural groups where the expression of emotional distress is inhibited.<sup>18</sup> In the present study, no difference in scores was found between the three main occupational groups. This suggests that any social class differences are at the level of presentation rather than experience of somatic symptoms.

Much has been written about ethnic differences in the somatization and psychologization of emotional distress.<sup>3,19,20</sup> Kleinman refers to the widespread finding that 'somatic symptoms in depression and anxiety disorders play a more central role in the experience and expression of disorder in non-western societies and among ethnic (minority) groups in the west'.<sup>21</sup> This study could not reach any conclusions on this issue because of the small number of Asian patients involved. However, a previous study using the Bradford somatic inventory to compare students in the UK and Pakistan found no difference in the number of somatic symptoms reported.<sup>22</sup> Women students in both countries reported more somatic symptoms and higher scores on the general health questionnaire<sup>23</sup> than men.

Significantly higher scores were found in this study among women with organic diagnoses or who were well patients than among men in these groups, although this was not the case for patients with psychiatric/functional diagnoses. These differences correspond with, and are partly attributable to, higher scores on anxious and depressed mood among women in the first two groups. But this does not account for the whole of the difference between the sexes, as confirmed by the inclusion of sex as an independent predictor variable in the multiple regression equation. There seem to be persistent sex differences in the reporting of psychosomatic symptoms.<sup>24</sup>

This study provides data on the occurrence of functional somatic symptoms in patients attending general practitioners. The aetiological complexity of this phenomenon has been underlined by the results of the multiple regression analysis which show five factors independently contributing to the variance in scores on the Bradford somatic inventory. Any comprehensive model of functional somatic symptoms will need to be multifactorial, acknowledging the complex interaction of genetic, familial, stress related and environmental factors, as well as symptom attributions and illness behaviour.

## References

- Lloyd G. Medicine without signs. *BMJ* 1983; **287**: 538-542.
- Lloyd GG. Psychiatric syndromes with a somatic presentation. *J Psychosom Res* 1986; **30**: 113-120.
- Goldberg DP, Bridges K. Somatic presentations of psychiatric illness in a primary care setting. *J Psychosom Res* 1988; **32**: 137-144.
- Kellner R. Somatic symptoms and psychosomatics. *Curr Opin Psychiatry* 1989; **2**: 254-258.
- Bridges KW, Goldberg DP. Somatic presentation of DSM III psychiatric disorders in primary care. *J Psychosom Res* 1985; **29**: 563-569.
- American Psychiatric Association. *Diagnostic and statistical manual of mental disorders*. 3rd edition. Washington: APA, 1980.
- Robinson JO, Granfield AJ. The frequent consulter in primary medical care. *J Psychosom Res* 1986; **30**: 589-600.
- Brown T. *MPhil thesis*. University of Edinburgh, 1987.
- Melville DI. Descriptive clinical research and medically unexplained physical symptoms. *J Psychosom Res* 1987; **31**: 359-365.
- Mumford DB, Bavington JT, Bhatnagar KS, et al. The Bradford somatic inventory: a multi-ethnic inventory of somatic symptoms reported by anxious and depressed patients in Britain and the Indo-Pakistan subcontinent. *Br J Psychiatry* 1991; **58**: 379-386.
- Norusis MJ. *SPSSx advanced statistics guide*. Chicago: McGraw-Hill, 1985.
- Stekel W. *Peculiarities of behaviour*. Volume I-II. London: Williams and Norgate, 1925.

13. Markus AC, Parkes CM, Tomson P, Johnston M. *Psychological problems in general practice*. Oxford University Press, 1989.
14. Gask L, Goldberg D, Porter R, Creed F. The treatment of somatization — evaluation of a teaching package with general practice trainees. *J Psychosom Res* 1989; **33**: 697-704.
15. Escobar JI, Burnam MA, Karno M, et al. Somatization in the community. *Arch Gen Psychiatry* 1987; **44**: 713-718.
16. Bass C (ed). *Somatization: physical symptoms, psychological illness*. Oxford: Blackwell, 1990.
17. Crandell DL, Dohrenwend BP. Some relations among psychiatric symptoms, organic illness and social class. *Am J Psychiatry* 1967; **123**: 1527-1538.
18. Mechanic D. Social psychologic factors affecting the presentation of bodily complaints. *N Engl J Med* 1972; **286**: 1132-1139.
19. Kirmeyer LJ. Culture, affect and somatization. *Transcultural Psychiatry Research Review* 1984; **21**: 159-188, 237-262.
20. Leff JP. *Psychiatry around the globe*. 2nd edition. London: Gaskell, 1988.
21. Kleinman A. Anthropology and psychiatry: the role of culture in cross-cultural research on illness. *Br J Psychiatry* 1987; **151**: 447-454.
22. Mumford DB. Somatic sensations and psychological distress among students in Britain and Pakistan. *Soc Psychiatry Psychiatr Epidemiol* 1989; **24**: 321-326.
23. Goldberg DP. A scaled version of the general health questionnaire. *Psychol Med* 1979; **9**: 139-145.
24. Vingerhoets AJJM, Van Heck GL. Gender, coping and psychosomatic symptoms. *Psychol Med* 1990; **20**: 125-135.

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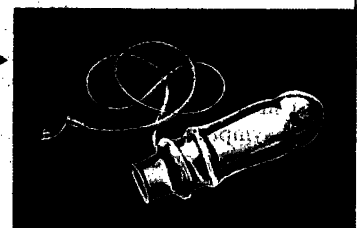
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