

The relationship between psychoneurotic status and psychoactive drug prescription in general practice

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SUMMARY. Psychoneurotic scores in a sample of all patients between the ages of 17 and 70 in a group practice have been studied, and the relationship with psychoactive drug prescribing examined. In addition some social factors have been studied, namely, the use of alcohol and tobacco, and self-medication.

The psychoneurotic scores of those prescribed psychoactive drugs are significantly higher than those for the general population, but do not fall after treatment.

Introduction

THERE have been many studies of patients consulting family doctors for emotional disturbance. Shepherd *et al.* (1966) studied 46 London practices and found that 14 per cent of the population consulted their general practitioner during the year on account of 'psychiatric' disorders. However, there was a nearly ninefold difference between the practices; consultation rates per 1,000 patients at risk from psychiatric morbidity ranged from 3.8 to 32.3.

Parish (1971) studied 20 practices in a Midland industrial city and found that eight per cent of patients at risk, over the age of 15, had been prescribed psychoactive drugs. The range in different practices was between 3.3 per cent and 16.0 per cent for men, and 7.9 per cent and 34.4 per cent for women. The trend increased with age.

In addition a large proportion of the population drink

and smoke, and a few individuals treat themselves with medication bought from the chemist.

Aim

This study tried to measure psychoneurotic levels within a defined community, in relation to the prescription of psychoactive drugs by general practitioners, the taking of alcohol, tobacco and self-medication, and some social factors.

Method

The study population consisted of patients from a group practice centred on a country town and the surrounding villages.

Every fifth patient between the ages of 17 and 70 years, identified using an age-sex register, was invited to participate. Two questionnaires, including the Middlesex Hospital Questionnaire, were attached to a letter of introduction. Fourteen days later a reminder went out to non-respondents. Those still unresponsive were finally invited to offer their reasons why.

Measurements

1. *Doctor's prescription.* The medical records of these patients were examined to determine their doctor, where they lived, and whether they were taking psychoactive drugs at the time of the survey, or during the preceding year. Psychoactive drugs were defined as hypnotics, tranquillizers, sedatives, stimulants, antidepressants, tonics and related compounds, whether prescribed alone or in polypharmaceutical preparations.

2. *Self-prescription.* The patients were asked: "Do you take, most days, not from the doctor, any pill, tonic or medicine? Yes or no."

3. *Alcohol consumption and smoking.* Patients were asked: "Do you smoke? Yes or no."

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How often do you usually drink alcohol?

- a) At least daily.
- b) More than once a week.
- c) More than once a month.
- d) Not at all."

4. *Social background.* Questions were also asked about occupation, size of house (number of rooms), number of people living in the house, degree of satisfaction with accommodation and proximity to relatives. Social class was determined from the stated occupation using the Registrar General's (1970) Classification.

5. *Psychoneurotic morbidity.* Psychoneurotic status was measured using the Middlesex Hospital Questionnaire (Crown and Crisp, 1965). This is a standardized self-report measure providing scores (0 to 16) on six separate scales: anxiety, phobic, obsessional, somatic complaint, depression, and hysteria (Figure 1).

Results

Of 970 patients approached, 727 (75 per cent) completed the questionnaire satisfactorily. Follow-up revealed that of the non-respondents two had recently died, six were incapable of completing the form (illiterate), and 81 had moved away from the area; 82.5 per cent of the potential respondents co-operated. Fifty-nine patients gave a reason for not co-operating. Forty-seven (5.4 per cent of potential respondents) were judged antipathetic.

The respondents and non-respondents were compared by age, sex, doctor, residence, and drug prescription. No significant differences were detected (Table 1).

Sixty-eight (seven per cent of 970) had been prescribed psychoactive drugs at some time during the preceding 12 months; and 29 (three per cent) were being prescribed these drugs at the time of the survey. Proportionately more women than men had been prescribed for in the previous year, but this was not the case at the time of the survey (Tables 2 and 3), and there was a

Table 1. Psychiatric medication and response to the survey.

	Psychoactive drugs	None	Total
Non-respondents	12	148	160*
Respondents	94	633	727
	106	781	887

$\chi^2 = 3.177$ (Yates correction; not significant)

*"Dead" and "gone away" have been excluded.

Table 2. Current psychiatric medication and sex.

	Male	Female	Total
Medication	11 (3.2)	15 (3.9)	26 (3.6)
No medication	335 (96.8)	366 (96.1)	701 (96.4)

$(\chi^2 = 0.12; \text{not significant})$

Table 3. Psychiatric medication in previous year and sex.

	Male	Female	Total
Medication	25 (7.2)	43 (11.3)	68 (9.4)
No medication	321 (92.8)	338 (88.7)	659 (90.6)

$(\chi^2 = 3.06; \text{not significant})$

significantly larger proportion of older patients, both male and female (Tables 4 and 5).

Thirty-five men and 50 women reported regular self-prescription (11.7 per cent of respondents). There was a significant association between self-prescription and medical prescription particularly among men (Table 6).

Figure 1. MHQ profiles for males and females grouped according to prescription of psychoactive drugs currently, within one year, or neither (controls).

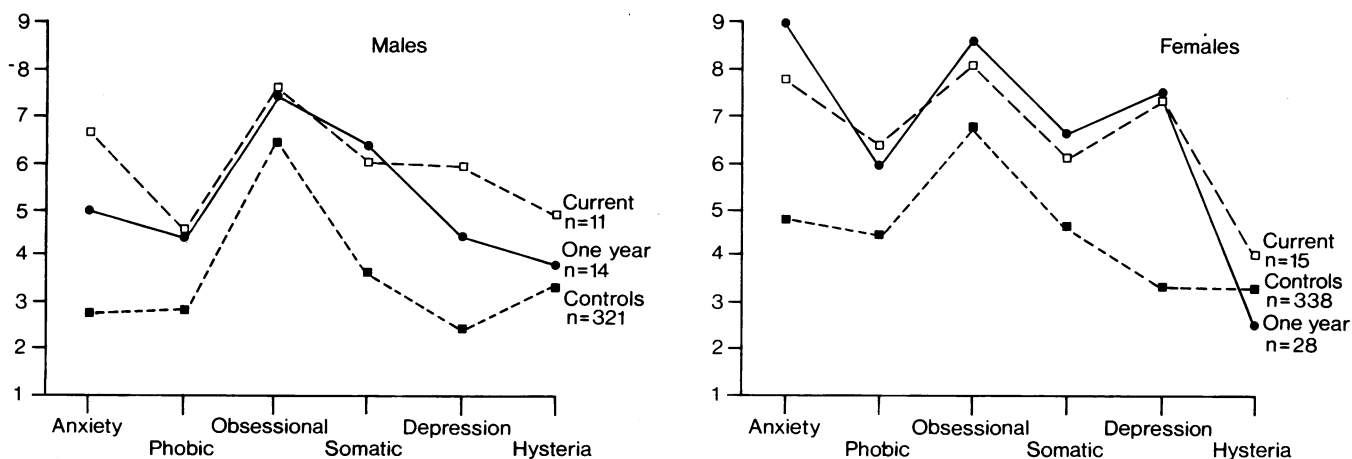


Table 4. Current psychiatric medication and age.

Age group	17-29	30-49	50-69
Medication	2 (1.2)	7 (2.7)	16 (5.5)
No medication	165 (98.8)	249 (97.3)	276 (94.5)
$(\chi^2 = 6.46; p < 0.05)$			

Table 5. Psychiatric medication in previous year and age.

Age group	17-29	30-49	50-69
Medication	9 (5.4)	22 (8.6)	35 (12.0)
No medication	158 (94.6)	234 (91.4)	257 (88.0)
$(\chi^2 = 5.71; \text{not significant})$			

No significant difference was found between those currently taking psychoactive drugs, and those who had been taking them during the previous year.

The two drug-taking groups were combined, and showed significantly raised scores on the Middlesex Hospital Questionnaire compared with the non-psychoactive drug-taking group. Both sexes showed significantly raised scores for anxiety and depression, and scores were raised to a lesser degree on the somatic scale. Females also showed significantly raised phobic and obsessional scores (Table 7).

No association was shown between medical prescription and social class. The suggestion of significant deficiency of Class 3 current drug takers is not repeated with previous drug takers and is interpreted as a chance finding (Table 8). No association was shown between medical prescription and smoking or between medical prescription and satisfaction with accommodation (Tables 9 and 10).

Discussion

In this study about ten per cent of all patients between the ages of 17 and 70 registered with a rural general

Table 6. Self-medication compared with general-practitioner prescription of psychiatric medication in the previous year.

		General practitioner		
		Yes	No	Total
Males	Self	Yes 8 (22.9)	27 (77.1)	35 (10.1)
		No 17 (5.5)	294 (94.5)	321 (92.8)
$(\chi^2 = 11.72; p < 0.001)$				
Females	Self	Yes 10 (20.0)	40 (80.0)	50 (13.2)
		No 32 (9.8)	296 (90.2)	328 (86.8)
$(\chi^2 = 3.63; 0.05 < p < 0.10 \text{ for males and females combined}; \chi^2 = 14.73; p < 0.0001)$				

Table 7. MHQ scores (mean \pm standard deviation) for the two drug treatment groups and the no-medication group, and results of T tests between the latter and the combined medication groups.

Medication				
	Current	Non-current	No medication	T test
Males				
Anxiety	6.7 \pm 5.2	5.0 \pm 3.0	2.8 \pm 2.8	4.46 $p < 0.001$
Phobic	3.6 \pm 2.8	3.5 \pm 2.4	2.9 \pm 2.4	1.22 NS
Obsessional	7.6 \pm 5.4	7.5 \pm 3.2	6.4 \pm 2.9	1.64 NS
Somatic	6.0 \pm 3.2	6.3 \pm 3.4	3.8 \pm 2.9	3.66 $p < 0.001$
Depression	5.9 \pm 4.4	4.4 \pm 2.7	2.4 \pm 2.3	5.09 $p < 0.001$
Hysteria	4.9 \pm 2.9	3.9 \pm 4.0	3.3 \pm 2.9	1.70 $p < 0.10$
Number of patients	11	14	321	
Females				
Anxiety	7.8 \pm 4.7	9.0 \pm 3.7	4.9 \pm 3.8	5.88 $p < 0.001$
Phobic	6.4 \pm 4.9	6.0 \pm 3.2	4.5 \pm 3.0	3.09 $p < 0.005$
Obsessional	8.1 \pm 2.9	8.6 \pm 3.2	6.9 \pm 3.0	2.97 $p < 0.005$
Somatic	6.2 \pm 4.3	6.7 \pm 3.6	4.7 \pm 3.1	3.37 $p < 0.001$
Depression	6.5 \pm 3.0	6.5 \pm 3.2	3.4 \pm 2.5	7.21 $p < 0.001$
Hysteria	4.1 \pm 2.8	2.6 \pm 2.1	3.3 \pm 3.0	0.26 NS
Number of patients	15	28	338	

NS = Not significant

practice received prescriptions for psychoactive drugs within a period of one year, and at the time of the study about three per cent were taking drugs.

This study showed that those who were being prescribed, or who had recently been prescribed, psychoactive drugs showed significantly raised neurotic scores compared with non-takers. There is evidence that a group of patients is being appropriately identified.

However, no significant difference is shown between

those currently being prescribed drugs and those who have recently been prescribed psychoactive drugs. This study does not demonstrate any curative effect.

There is a presumption that those who have ceased to accept prescription are in some way better, though it may be that they have realized the limitations of drug treatment, that they have learned to tolerate their symptoms, that other coping mechanisms have taken over, or that the state of dependency has been rejected.

Table 8. Psychoactive medication by social class and sex*
(*percentage and rates for each social class given).

		Social class					Total	
		1	2	3	4	5		
Males								
Drugs current	%	4 (1/27)	5 (4/88)	0 (0/142)	5 (4/74)	14 (1/7)	3 (10/338)	$\chi^2 = 9.82$ $p < 0.05$ see text
Previous year	%	4 (1/27)	7 (6/88)	6 (8/142)	11 (8/74)	14 (1/7)	7 (24/338)	$\chi^2 = 3.04NS$
Females								
Current	%	0 (0/16)	4 (4/108)	3 (4/140)	6 (5/80)	0 (0/14)	4 (13/358)	$\chi^2 = 2.94NS$
Previous year	%	6 (1/16)	9 (10/108)	11 (16/140)	13 (10/80)	7 (1/14)	11 (38/358)	$\chi^2 = 1.11NS$
Total								
Current	%	2 (1/43)	4 (8/188)	1 (4/282)	6 (9/154)	5 (1/21)	3 (23/696)	$\chi^2 = 6.89NS$
Previous year	%	6 (1/16)	9 (10/108)	11 (16/140)	13 (10/80)	7 (1/14)	11 (38/358)	$\chi^2 = 2.63NS$

Table 9. Psychoactive medication and smoking by sex.

		Non-smoker	Smoker	
Males				
Current	%	2 (3/158)	4 (8/188)	$\chi^2 = 0.88 NS$
Previous year	%	7 (11/158)	7 (14/188)	$\chi^2 = 0.00 NS$
Females				
Current	%	4 (9/248)	5 (6/131)	$\chi^2 = 0.03 NS$
Previous year	%	10 (24/248)	14 (18/131)	$\chi^2 = 1.05 NS$
Total				
Current	%	3 (12/406)	4 (14/319)	$\chi^2 = 0.69 NS$
Previous year	%	9 (35/406)	10 (32/319)	$\chi^2 = 0.62 NS$

Table 10. Psychoactive medication and satisfaction with accommodation, by sex.

		Very dissatisfied	Slightly dissatisfied	Fairly satisfied	Very satisfied	
<i>Males</i>						
Current	%	5 (1/19)	0 (0/36)	2 (2/98)	3 (6/187)	$\chi^2 = 1.85$ NS
Previous year	%	16 (3/19)	8 (3/36)	6 (6/98)	6 (11/187)	$\chi^2 = 2.89$ NS
<i>Females</i>						
Current	%	4 (1/23)	3 (1/39)	1 (1/98)	6 (12/217)	$\chi^2 = 3.82$ NS
Previous year	%	9 (2/23)	10 (4/39)	8 (8/98)	13 (29/217)	$\chi^2 = 2.06$ NS
<i>Total</i>						
Current	%	5 (2/42)	1 (1/75)	2 (3/196)	5 (18/404)	$\chi^2 = 4.73$ NS
Previous year	%	12 (5/42)	9 (7/75)	7 (14/196)	10 (40/404)	$\chi^2 = 1.60$ NS

Alternatively it could be that they are no better.

The lack of association of psychoactive drug prescribing with these social measures may suggest that they are not important contributory factors. It may be that patients in the lower social classes tend to feel their stresses and report them in physical terms, and are thus offered, for instance, analgesics.

Significant relationships between social class and questionnaire scores have been shown and an article is being prepared.

It is of interest that no significant association is shown between medical psychoactive drugs on the one hand and the social psychoactive drugs, alcohol and nicotine, on the other. It might be supposed that these drugs are regarded either as similar or as substitutes for each other; that either a positive or negative association could emerge. This has not been shown. Nor have the social conditions examined been shown to affect drug prescription. Questionnaire answers to questions about alcohol intake are, however, always difficult to interpret. Nevertheless, a positive correlation has been

shown with self-reported self-medication with drugs such as laxatives and analgesics and the prescribing of psychoactive drugs. It may be that patients regard these drugs as 'good for their nerves' (psychoactive) but this seems unlikely. It is more likely that it is evidence of an obsessional personality and a habit of dependency.

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Acknowledgement

I wish to thank Dr R. J. F. H. Pinsent and the General Practice Research Unit, Birmingham, for advice, and the Research Foundation Board of the Royal College of General Practitioners for financial support.