

# Characteristics of long term benzodiazepine users in general practice

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**SUMMARY.** *In a practice of 6000 patients, all long term users of day time benzodiazepine tranquillizers were identified and matched for age and sex with controls. Patients and controls were asked to complete two postal questionnaires, one to measure a number of neurotic personality traits and the other to record details of personal history thought to be relevant. Tranquillizer users were also sent a third questionnaire which surveyed their attitudes to reliance on tranquillizers. Long term users of benzodiazepines had significantly higher scores for anxiety and other neurotic traits but their personal histories showed few significant differences from those of controls. Patients reliant on benzodiazepines seem to be a distinct, more 'neurotic' sub-group of the practice population although their lives have not been any more disturbed. Most patients thought that tranquillizers had helped them but many felt uneasy about being reliant on them. Follow up showed a trend towards spontaneous discontinuing of the tablets.*

## Introduction

DESPITE a decline in the level of prescribing in the last few years,<sup>1</sup> there is still a good deal of unease<sup>2</sup> about the number of patients who are chronic users of benzodiazepine tranquillizers. Mellinger and colleagues found in 1979<sup>3</sup> that 1.6% of the adult population in the USA had been taking benzodiazepines regularly for more than a year, and in many cases the duration exceeded six years. There is reason to believe from British surveys<sup>4</sup> that a similar situation prevails here. Doctors have been accused of encouraging dependence on tranquillizers<sup>5</sup> by prescribing drugs such as diazepam at the first hint of any anxiety or functional symptoms. This view suggests that becoming 'hooked' could happen to any innocent person experiencing a brief period of stress or personal crisis if he or she accepts the doctor's advice. An alternative hypothesis is that those who become chronic users are rather special people; a distinct subgroup of the population whose personality makes them unusually prone to anxiety and a variety of other psychological difficulties.

The aims of this study were: (1) to compare the psychological profiles and life histories of long term benzodiazepine users in one practice population with matched controls and (2) to explore some of the attitudes of the drug users to their own reliance, and to assess whether they saw reliance as a problem.

## Method

The practice is situated in a north-west London suburb and contains about 6000 patients. Two thirds of the patients live in privately owned or rented semi-detached houses and flats. The

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other one third live on a large council estate with many social and architectural problems. The council estate patients are more likely to be members of young families, single parent families or ethnic minorities than those in the longer established private housing.

In 1984, about a year before the study was carried out, the three doctors in the practice had become concerned about the possible adverse effects of tranquillizer reliance. It had been agreed at this time that benzodiazepines would henceforth be used sparingly and every effort made not to create any new reliance. No attempt was made to refuse prescriptions to existing reliant patients.

All patients in the practice who had been taking benzodiazepines regularly during the day for more than a year had been identified by monitoring prescribing over a three month period from 1 October to 31 December 1984. Those who used them only as sleeping tablets had been excluded. The survey reported here was carried out in June 1985 using the same patients. For each patient two controls matched for age (within one year) and sex were randomly selected from the practice age-sex register. Patients and controls were sent two postal questionnaires to complete — one to measure a number of neurotic personality traits (the Crown-Crisp experiential index<sup>6</sup>) and the other to record details of personal history thought to be relevant. Tranquillizer users were also sent a third questionnaire which surveyed their attitudes to reliance on tranquillizers.

## Questionnaires

The Crown-Crisp index<sup>6</sup> consists of 48 questions designed to provide scores on six subscales which measure respectively free-floating anxiety, phobic anxiety, obsessionality, somatic components of anxiety, depression and hysterical personality. The subscales have been validated by calibration with control groups of patients with clinically defined psychiatric problems. There are eight questions for each of the six subscales. A positive answer scores 1 or 2 so that there is a range of scores from 0 to 16 for each trait.

The personal history survey was devised to elicit information about domestic circumstances, smoking and drinking habits, chronic illnesses and factors likely to lead to parental deprivation in childhood (for example early death of a parent).

For the benzodiazepine users the tranquillizer survey contained questions about how the drug was used, why it had been prescribed in the first place, attitudes to reliance, and patients' capacity to find other ways of dealing with anxiety and personal problems.

Those who did not respond to the initial mailing were sent a reminder by post and those who still did not reply were followed up by telephone, where possible.

## Data analysis

The Crown-Crisp scores were analysed by the method described for continuous data by Walter.<sup>7</sup> The personal history survey questionnaires were analysed by a method<sup>8</sup> which fits conditional maximum likelihood models to calculate the relative risk for each and tests whether this is significantly different from 1.

## Results

Out of a total of approximately 6000 patients in the practice there were 96 who had been using day time benzodiazepines for more than one year: 79 patients (82%) were aged over 45 years and 66 (69%) over 55 years. Out of the 96 patients 78 were women (81%). The practice records showed the drugs being taken were diazepam (59 patients), lorazepam (19), chlordiazepoxide (11), oxazepam (6) and temazepam (1). Of those taking diazepam 14 took less than 2 mg daily, 39 were taking between 2 mg and 15 mg daily and the remaining six between 20 mg and 40 mg daily. There was a similar dosage range for those taking the other benzodiazepines.

Seventy-two patients (75%) responded to the questionnaires but four of them did not complete the tranquillizer survey. For the matched questionnaires 68 cases had two controls and four had a single control. Fifty-nine of the 72 responders were women (82%); 62 (86%) were aged over 45 years and 45 (63%) were over 55 years. Only six (8%) of the patients and 12 (8%) of the controls lives on the council estate.

The non-responders had a similar age and sex distribution to the responders. An examination of their case notes showed no major differences in personal history from those who completed the questionnaires.

### Crown-Crisp experiential index

The results of the Crown-Crisp experiential index showed a clear difference between users and controls in respect of all six subscales and especially for free-floating anxiety (Table 1). Tranquillizer users had significantly higher scores for all traits. Although the mean scores were not as high as those of psychiatric inpatients, they were similar to the scores of psychiatric outpatients which had been used in validating the questionnaire.<sup>6</sup> The mean scores of the controls were close to those of a group of normal suburban females who were tested by Crisp and Priest in 1971.<sup>9</sup>

**Table 1.** Crown-Crisp experiential index results: scores of patients and controls for the six neurotic traits.

Variable	Mean score		Mean score difference	(SE)	t <sub>67</sub>
	Patients (n = 72)	Controls (n = 140)			
Anxiety	9.11	4.58	4.53	(0.48)	9.42 P<0.001
Phobic	6.46	3.97	2.49	(0.41)	6.04 P<0.001
Obsessive	8.61	6.54	2.07	(0.48)	4.35 P<0.001
Somatic	7.44	5.64	1.80	(0.49)	3.66 P<0.01
Depression	6.47	4.17	2.30	(0.42)	5.55 P<0.001
Hysteria	4.15	3.01	1.14	(0.42)	2.71 P<0.01

SE = standard error. n = number of respondents.

### Personal history survey

No significant differences between tranquillizer users and controls were found in respect of marital status, living alone or keeping pets (Table 2). Users were not significantly more likely to have suffered the death of their spouse in the previous 10 years or any other bereavement in the previous 20 years. During their childhood tranquillizer users were no more likely than controls to have experienced parental separation, divorce, or mental illness, or the death of their mother before they had reached the age of 18 years. There was no significant difference in smoking habits between the two groups. However, tranquillizer users were more likely than controls to have less than one alcoholic drink per week, to suffer from chronic physical illness, to take sleeping tablets and to have lost their father when under the age of 18 years (Table 2).

**Table 2.** Personal history of patients and controls.

Personal history item	Number (%) of respondents	
	Patients (n = 72)	Controls (n = 140)
Married	38 (53)	84 (60)
Live with other people	51 (71)	94 (67)
Keep pets	27 (38)	49 (35)
Death of spouse in last 10 yrs	5 (7)	10 (7)
Death of other close relative in last 20 yrs	53 (74)	88 (63)
Lost mother before age 18 yrs	9 (13)	23 (16)
Lost father before age 18 yrs	25 (35)	22 (16)
Parents separated	9 (13)	7 (5)
Mother had mental illness	5 (7)	4 (3)
Father had mental illness	2 (3)	2 (1)
Non-smoker	50 (69)	100 (71)
Less than one alcoholic drink a week	47 (65)	66 (47)
Suffer from chronic physical illness	39 (54)	39 (28)
Take sleeping tablets	30 (42)	20 (14)

### Tranquillizer survey

The questionnaire about use of tranquillizers and attitudes towards them was completed by 68 of the long term benzodiazepine users. Forty-nine patients (72%) had been taking the drug for more than five years, and 30 (44%) for 10 years or longer. The dose of benzodiazepine varied in most cases from three tablets daily (42 patients, 62%) to less than one a day (14 patients, 21%). Six patients were taking more than the recommended maximum daily dose but the case notes showed no tendency to further escalation or abuse.

When asked why the doctor had prescribed the tablets in the first place, 45 patients (66%) indicated anxiety and 36 (53%) depression. Forty-one patients (60%) said the drugs had first been prescribed because of a crisis in their personal lives and for 13 (19%) this had been a bereavement. Another question asked about attitudes to tranquillizers and dependence: 54 (79%) agreed that the tablets had been 'a lot of help', and only 28 (41%) 'intended to stop soon'; 26 (38%) agreed that they wished they had never started and 33 (49%) that they would feel unwell if they tried to stop; 29 (43%) agreed that they wished they had been warned that the tablets were habit forming.

When asked about alternative forms of help, 50 patients (74%) agreed that they found it helpful to talk to someone when they have a personal problem or their 'nerves are bad'. The listener they were most likely to choose was a member of the family (19 patients), the general practitioner (19) or a friend (18). Forty-five patients (66%) said they had tried to cut down on the tablets or to give them up in the previous year; 14 of these had received help from their general practitioner, three from a psychiatrist, two from a television programme and 24 had received no help (Table 3). Those receiving no help were conspicuously the most

**Table 3.** Patients who tried to give up their tranquillizers in the previous year: who helped them and what success they had.

Help obtained	Number (%) of patients			
	Taking same dose	Taking reduced dose	Stopped	Total
No help	1	15	8	24 (53)
GP	0	12	2	14 (31)
Psychiatrist	1	2	0	3 (7)
TV programme	0	2	0	2 (4)
Other	1	1	0	2 (4)
Total	3	32	10	45 (100)

successful in cutting down: 10 patients (15%) had given up tablets completely since they had first been identified in 1984.

### Follow up

A survey of the case notes nine months later showed that of 82 patients who had been taking tranquillizers for more than a year who were still on the practice list a total of 37 (45%) had ceased to receive prescriptions.

### Discussion

The age and sex distribution of the long term benzodiazepine users in the practice confirmed previous findings<sup>3</sup> that the majority of these patients were women in late middle age or old age.

The Crown-Crisp experiential index scores indicated that long term benzodiazepine users were a distinct subgroup of the practice population who suffered significantly more than controls from a variety of forms of psychic distress. The suffering is unlikely to be the consequence of their reliance on tranquillizers as dependence produces symptoms only when the drug is withdrawn. More probably, the patients in this study suffer from anxiety, depression and 'functional' physical symptoms despite the free availability of their tranquillizers and they should be regarded as having a chronic neurotic disposition or personality. The personal history survey sheds little light on the possible aetiology of this kind of personality. The patients were not exposed to any more emotional deprivation in childhood than other people; although they were significantly more likely to have lost their father before the age of 18 years they were not more likely to have lost their mother before this age, to have experienced the separation of their parents, or to have had a parent with mental illness. They were more likely to suffer from a chronic physical illness than the controls (as were those in the American survey of Mellinger and colleagues<sup>3</sup>). However, this could be a result or a cause of the psychological disturbance.

The patients in the study were evidently prone to become reliant on benzodiazepines and it could be argued that prescribing these drugs in the first place might have been avoided if their abnormal Marks-Crisp scores had been known. On the other hand Marks<sup>1</sup> considers that anxiolytic therapy continues to be effective in long term use and believes that the level of distress produced by chronic anxiety may justify continuing use despite the risk of dependence.

The majority of long term users in this survey (79%) felt that their tranquillizers were helping them and there was no evidence from the clinical records that any patients had suffered ill effects. Nor were there any current problems with patients pressing to escalate their doses. However, the replies indicated some unease about reliance and a wish to be free from it. Those most successful in giving up the tablets seemed to have managed without professional help and were, perhaps, the most strongly motivated. Although only 15% of patients had been successful in giving up in the previous 12 months, it is interesting that nine months after the survey 45% of all those on long term therapy had given up the tablets. This suggested that in the study practice at any rate, long term benzodiazepine use is declining rapidly. Patients in the survey were already aware that their doctors were unhappy about long term benzodiazepine reliance before they received their questionnaires. The practice policy had been not to provide repeat prescriptions for tranquillizers without inviting patients to discuss with the doctor whether the tablets might be reduced or discontinued. Filling in a detailed questionnaire may have further encouraged patients to think seriously about whether indefinite tranquillizer taking was desirable. If this were indeed the case, the study has been of considerable therapeutic benefit to the patients concerned. Similar results might follow in other practices if the doctors are seen by their patients to be concerned about the overuse or misuse of benzodiazepines.

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