

MEDICAL PRACTICE

Contemporary Themes

Drugs prescribed for self poisoners

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Abstract

Of 230 adults admitted for self poisoning over two months, 153 (67%) had previously been taking a total of 309 prescribed drugs. Of these patients, 119 (78%) had been given psychotropic drugs (usually benzodiazepines), 81 (53%) obtained them on repeat prescription, and 47 (31%) had been prescribed multiple psychotropic drugs, often in seemingly illogical combinations. The use of these drugs increased progressively with age and most patients took the same drugs in overdose as they had been prescribed. Psychotropic drugs were prescribed for more than a third of patients with no psychiatric illness and a normal personality, nearly half of those with existing alcohol or drug abuse problems, and for most of the unemployed. Fewer than a third of the patients suffering from depression were prescribed antidepressants but half had been given benzodiazepines and other potentially depressing drugs.

Psychotropic drug use, psychotropic polypharmacy, and the repeat prescribing of these drugs were strongly associated with repeated overdose and, under certain circumstances, with personality disorder, alcohol or drug abuse, unemployment, and conflict with the law.

In the long term psychotropic drugs are unlikely to benefit most self poisoners, and they may do positive harm by inducing apathy and depression and predisposing to self poisoning. The incidence of self poisoning (and repeat overdose in particular) might be reduced by more care and restraint in the prescribing of these drugs.

Introduction

Self poisoning has increased dramatically over the past 30 years. It has become an intractable problem and is one of the commonest causes of acute admission to hospital. The demographic, psychosocial, and cultural factors associated with self poisoning and the changing pattern of drugs taken in overdose have been well documented in recent years.¹⁻⁴ By contrast, little attention has been given to the heavy prescribing of drugs for patients who poison themselves or to the possibility that this may sometimes be harmful.

Drugs are usually taken in overdose on impulse because of a crisis in coping with social or personal difficulties, and most patients have previously been prescribed psychotropic drugs^{1,5} with the expectation that the burden of their problems will thereby be eased. Although some patients may be helped, others will admit in retrospect that they have not been helped or that they have actually been made worse by drug treatment. Psychotropic drugs may increase suicidal thoughts, cause depression, and predispose to self poisoning,⁶⁻¹³ and their increased prescribing for personal problems over the years has gone hand in hand with the increase in drug overdose.^{2,14} The possibility of a causal role on a wider scale does not seem to have been considered seriously and the use of prescribed drugs by self poisoners has not been examined in detail. We report the results of a survey of drugs prescribed for such patients with particular reference to psychotropic drugs and repeated drug overdose.

Methods

The survey covered 279 consecutive adult admissions to the Regional Poisoning Treatment Centre, Edinburgh, over a two month period during March to May 1983. Information was obtained from patients, their relatives, and general practitioners concerning demographic factors; medical, psychiatric, and social problems; recent medical contact; currently prescribed drugs; and the nature and source of the substances stated to have been taken in overdose. After psychiatric and social assessment the patients were classed as having one or more of the following: normal personality with no

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psychiatric illness, personality disorder, depression, alcohol or drug abuse problems, schizophrenia like disorder, neurosis. Regular use of psychotropic drugs was defined as daily use of sedatives, hypnotics, anxiolytics, major and minor tranquilisers, antidepressants, anticonvulsants, or narcotic analgesics for at least one month before admission. Repeat prescriptions refer only to those written for psychotropic drugs.

Forty nine patients were excluded: 27 discharged themselves before psychiatric assessment, four refused to be interviewed, one died, and 17 were admitted for reasons other than self poisoning. Analysis of variance and the χ^2 test were used to compare differences between means and groups. In some cases the group totals add up to more than 100% because the categories are not exclusive.

Results

The study group consisted of 230 patients. Table I summarises their characteristics. Their ages ranged from 13 to 83 years (mean 33.5), and most were single women aged 20 to 30. Significantly more men than women were in trouble with the law ($\chi^2=14.6$; $p<0.001$), were unemployed ($\chi^2=33.5$; $p<0.001$), and had problems with alcohol or drug abuse ($\chi^2=7.1$; $p<0.01$).

TABLE I—Details of patients admitted with self poisoning. (Percentages given in parentheses)

	All patients	Men	Women
No	230	104	126
Mean age (years)	33.5	34.5	32.7
Married	69	29 (28)	40 (32)
Unemployed	92	63 (61)	29 (23)
Trouble with police	49	34 (33)	15 (12)
Alcohol/drug abuse	33	22 (21)	11 (9)
Regular use of psychotropics	75	40 (38)	35 (28)
Repeat prescriptions*	81	43 (41)	38 (30)
Repeat overdosage	103	52 (50)	51 (40)

*Psychotropic drugs only.

TABLE II—Drugs prescribed for self poisoners

	No (% of patients)	% Women	% Taking repeat overdose	Mean age (years)
None	77 (33)	47	35	27.2
All drugs	153 (67)	59	50	36.8
Psychotropic drugs	119 (52)	55	54	40.1
Benzodiazepines	85 (37)	49	55	41.7
Antidepressants	27 (12)	52	48	44.5
Major tranquilisers	24 (10)	42	75	41.3
Narcotic analgesics	13 (6)	77	62	31.0
Non-narcotic analgesics	24 (10)	75	37	35.8
Miscellaneous*	28 (12)	71	39	26.9

*Drugs other than psychotropic and analgesic agents.

Drugs taken in overdosage—The 230 patients claimed to have taken a total of 358 drugs or poisons: five inhaled organic solvents, nine took alcohol alone, and seven took household or other products only. Eighty four patients (37%) took multiple drugs and poisons. Psychotropic drugs were taken by 140 patients (61%). Eighty six patients (37%) took benzodiazepines, 23 (10%) antidepressants, and 12 (5%) major tranquilisers. Narcotic and non-narcotic analgesics were used by 23 (10%) and 73 (32%) patients respectively, while 46 (20%) took miscellaneous drugs and poisons. Sixty two patients (27%) used aspirin or paracetamol. Most patients took the same drugs in overdosage as they had been prescribed, and 119 (85%) of the patients who had been given psychotropic drugs took them in overdosage. The patients who had not been given drugs and those prescribed miscellaneous drugs poisoned themselves most often with non-narcotic analgesics (47% and 46% respectively).

Prescribed drugs—One hundred and fifty three patients (67%) were taking a total of 309 prescribed drugs. Of these patients, 119 (78%) had been given psychotropic drugs and 85 (56%) were taking benzodiazepines. Comparatively few patients had been given antidepressants, major tranquilisers, or analgesics (table II). Miscellaneous drugs (including oral contraceptives) were prescribed for 62 patients, 34 of whom were also receiving psychotropic or analgesic agents. The patients who were taking prescribed drugs were significantly older than those who were not ($p<0.0001$), and 36% were married compared with 19% of those who were not taking drugs ($\chi^2=6.7$; $p<0.01$). Women received most of the prescriptions for analgesics and miscellaneous drugs.

Drugs prescribed and psychosocial diagnosis—Table III shows the drugs prescribed in relation to psychosocial diagnosis. Psychotropic drugs were prescribed for most patients with personality disorder, depression, and schizophrenia like disorders but, surprisingly, they had also been given to 33 (36%) of the patients with no psychiatric illness and a normal personality and to 14 (42%) of the patients who already had problems with alcohol or drug abuse. As expected, most patients with schizophrenia like disorders were taking major tranquilisers, but 13 (81%) had also been prescribed benzodiazepines. Drugs had been prescribed for two thirds of the unemployed, of whom 81% had been given psychotropic drugs and 63% were taking benzodiazepines. Only 14 of the 44 depressed patients (32%) were receiving antidepressants. On the other hand, 21 had been prescribed benzodiazepines and five phenothiazines or clonidine—drugs which could have aggravated their condition. Miscellaneous drugs and analgesics were prescribed to a generally similar extent in all groups.

Psychotropic drugs—Benzodiazepines were by far the most commonly prescribed psychotropic drugs. Sixteen patients were taking the habit forming drugs dextropropoxyphene, dihydrocodeine, meprobamate, chlormethiazole, and barbiturate hypnotics, and these were obtained on repeat prescription by all but one patient. Intoxication with these drugs is particularly dangerous, yet 13 patients (81%) had previously taken drugs in overdosage. The patients who had been prescribed psychotropic drugs were significantly older than those who had not (mean ages 40.1 and 26.6 years respectively; $p<0.0001$); figure 1 compares their age distributions. There was a highly significant association between the prescribing of psychotropic drugs and repeat overdosage (table II) ($\chi^2=8.1$; $p<0.005$). The rate of prescribing of psychotropic drugs (but not other drugs) increased progressively and strikingly with age (fig 2), and they had been given to all eight patients aged 70 or more. Of the 119 patients taking psychotropic drugs, 112 (94%) had visited their general practitioner in the 10 weeks before

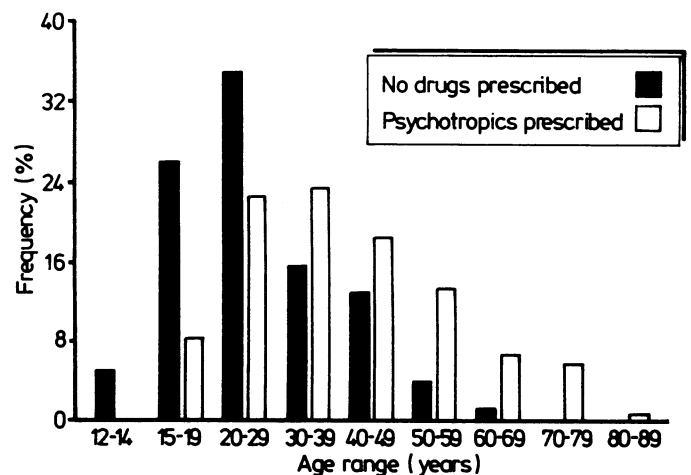


FIG 1—Age distribution of 119 patients receiving psychotropic drugs and 77 patients not taking prescribed drugs at time of overdosage.

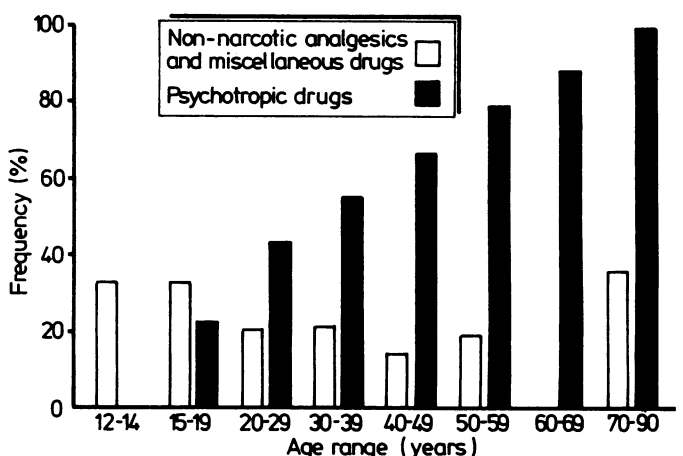


FIG 2—Percentage frequency of prescribing of psychotropic, non-narcotic, and miscellaneous drugs according to age.

admission, and 94 of these (84%) had obtained drugs. By contrast, of the 77 patients who were not taking drugs, 33 (43%) had seen their doctors within the same period and only 10 (30%) had been prescribed drugs which they had stopped taking. Psychotropic drugs were taken regularly by 75 patients (40 men, 35 women), and 72 (96%) obtained them on repeat prescription.

Multiple psychotropic drugs—Multiple psychotropic drugs had been prescribed for 47 patients. Seven patients were given benzodiazepines with other habit forming central nervous system depressants and seven patients had been prescribed two or more different benzodiazepines at the same time. Antidepressants were often prescribed with central nervous system depressants, as in the case of a 58 year old depressed woman taking clomipramine with chlorpromazine, nitrazepam, and clonidine and of a 28 year old man with no psychiatric illness given amitriptyline with lorazepam, nitrazepam, and temazepam. There were significant associations between the use of multiple psychotropic drugs and trouble with the police ($\chi^2=4.2$; $p<0.05$) and repeat prescriptions and repeat overdosage (table IV). The relation with unemployment almost reached statistical significance ($\chi^2=3.0$; $p=0.08$).

Repeat prescriptions and repeat overdosage—Eighty one patients (35%) were receiving repeat prescriptions for psychotropic drugs and 103 (45%) had a history of repeat overdosage. There was a highly significant association

patients receiving regular and multiple psychotropic drugs on repeat prescription with repeated admissions for self poisoning.

Others have reported similar heavy and repeat prescribing of psychotropic drugs for self poisoners^{1,5} and their continued use even after an overdose.^{15,16} Only a minority of patients have psychiatric illness for which drug treatment is indicated, and most are disadvantaged, disappointed, frustrated, or unhappy because of personal and social problems. Doctors may think that psychotropic drugs give some comfort and relief of distress which allows these patients to cope more effectively with the problems of life from which there is no other easy escape; but there is no evidence that their regular use benefits those with intractable social problems who repeatedly resort to overdosage. On the contrary, these drugs may be positively harmful. Dependence on the benzodiazepines is a serious problem,^{17,21} and psychotropic drugs may have adverse effects on mood and behaviour which predispose to self poisoning. They may impair judgment; induce apathy, retardation, and depression; and lower tolerance with irritability and aggressive

TABLE III—Drugs prescribed in relation to psychosocial diagnosis

	Psychosocial diagnosis					
	None, normal personality	Personality disorder	Depression	Schizophrenia like disorders	Alcohol or drug abuse	Unemployment
No of patients	91	58	44	16	33	92
Mean age (years)	27.7	31.4	44.2	38.2	36.7	31.4
Drugs prescribed (%):						
None	44	26	20	6	39	33
All psychotropics	36	62	68	94	42	54
Benzodiazepines	21	47	48	81	33	42
Antidepressants	5	10	32	6	12	3
Major tranquilisers	2	19	9	87	3	5
Narcotic analgesics	9	2	2	0	9	1
Non-narcotic analgesics	15	12	2	12	3	3
Miscellaneous	14	10	14	0	15	9

TABLE IV—Psychotropic drug use, repeat prescriptions, and repeat drug overdosage

	Repeat prescriptions	Repeat overdosage	Repeat prescriptions and repeat overdosage
No of patients	81	103	48
% Women	47	50	40*
Regular psychotropics	72***	43	41***
Multiple psychotropics	42***	27*	27***
Psychotropic overdose	68***	68	37**
Personality disorder	25	33*	17
Alcohol/drug abuse	12	24**	10
Unemployment	38	52**	27*

* $p<0.05$; ** $p<0.01$; *** $p<0.0001$.

between these groups ($\chi^2=10.6$, $p<0.002$). Repeat prescribing and repeat overdosage were also associated with regular and multiple psychotropic drug treatment, psychotropic drug overdosage; personality disorder, alcohol or drug abuse, and unemployment (table IV). The patients receiving regular and multiple psychotropic drugs on repeat prescription with repeated admissions for self poisoning were mostly middle aged and more likely to be men than women ($\chi^2=8.1$; $p<0.005$). Patients who were taking psychotropic drugs regularly were more likely to take repeated overdoses than those who were not ($\chi^2=7.1$; $p<0.01$). Forty nine of the 81 patients (60%) who were given psychotropic drugs regularly on repeat prescription had been taking them for more than a year, and again there was an excess of men in this group ($\chi^2=4.9$; $p<0.05$).

Discussion

This survey disclosed a disturbingly high rate of prescribing of psychotropic drugs, multiple psychotropic drug usage, and repeat prescribing in self poisoners which was strongly associated with repeat overdosage and, under certain circumstances, with personality disorder, alcohol or drug abuse, unemployment, and trouble with the police. There appeared to be a hard core of predominantly male

responses which may be self directed.^{6-13,22} The benzodiazepines and phenothiazines in particular may cause severe depression, and patients have killed themselves as a result.^{10,11,13} Fewer than a third of our patients with depression had been prescribed antidepressants, yet nearly half had been given benzodiazepines, in some cases combined with other potentially depressing drugs. Many patients were given multiple drugs in seemingly illogical combinations, and it is no exaggeration to say that the burden of psychotropic drugs carried by some was astonishing.

The psychotropic drugs prescribed for self poisoners represent only a very small proportion of their total use, and most patients cope with their problems without resorting to overdosage. There is, however, a very close temporal relation between contact with general practitioners, the prescribing of psychotropic drugs, and subsequent overdosage.^{1,5,15} Brewer and Farmer²³ drew attention to the recent decline in hospital admissions for self poisoning in parallel with reduced prescribing of hypnotics and tranquilisers. They attributed this decline to decreased availability of psychoactive drugs and did not consider the possibility of a causal role. Whatever the explanation, our findings suggest that the more psychotropic drugs are prescribed and given in combination, and the more repeat prescribing for self poisoners, the more likely they are to take drugs repeatedly in overdosage. The search for some means of preventing self poisoning has been singularly unsuccessful, and much might be gained by more care and restraint in the use of these drugs. As stated by Kessel, "doctors are the designers of the fashion of self-poisoning. We have invented and we prescribe dangerous substances, hypnotics and sedatives like sorcerers; and these patients are our apprentices."²⁴

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Impact of whooping cough on patients and their families

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Abstract

The effects of whooping cough were studied in 21 children admitted to hospital with the disease and in their families. The illness caused considerable distress to both child and family. Parents suffered especially from fears for the life and health of their child and from serious loss of sleep. Two months after admission the child's behaviour was still disturbed, but in most cases the rest of the family had returned to normal. There was much misunderstanding and misinformation about whooping cough among both parents and doctors.

Introduction

The controversy about vaccination against whooping cough has led to renewed interest in the disease, and much information has been obtained about its severity and complications in recent epidemics.^{1,4} Few objective data are available, however, on the impact of the illness on the child's family. This study describes the effects of whooping cough on 21 children admitted to hospital and their families.

Patients and methods

Eighteen of the 21 children with whooping cough studied were admitted consecutively to this hospital, and three were admitted to two nearby hospitals over the same period. All children had an illness satisfying our diagnostic criteria for whooping cough.⁵ The mothers of these children were interviewed on two occasions. The first interview took place in the ward within six days of the child's admission, and the second was carried out at home eight to 13 weeks after admission in 19 cases and, for operational reasons, four to five weeks after admission in the two others. The interviews

consisted of structured but open ended questions providing a systematic approach without limiting the scope of information gathered.⁶

Maternal assessments of subjective items such as the quality of the marriage were graded on simple scales—for example, from 1 (very unhappy) to 5 (very happy). The child's behaviour was assessed by check lists⁷ graded on a scale of 1-3. Family activities were assessed by check lists of possible everyday activities of the child with its mother or father (13 point scale) or with its siblings (11 point scale) or of the mother and father alone (12 point scale). The positive replies on these check lists were summed to provide overall variables of family life, and the check list of the child's behaviour was similarly analysed. Social class was derived from the father's occupation where relevant and otherwise the mother's. Both interviews with each mother were carried out by the same interviewer (IJ or MH). The hospital ethical committee approved the study.

Results

The children had a median age of 9 months (range 1-67): 12 were aged under 1 year, three were aged 1 year, and six were aged 3-5 years. Fourteen mothers were married, two separated, and five single. Fourteen families were of manual social class.

The mean duration of illness was 11.7 weeks (table I). This included data on four children who were not considered by their mothers to have returned to normal health at the time of the second interview (12-19 weeks after the start of the illness). The mean time from onset to "definite improvement" was 9.3 weeks.

TABLE I—Duration of illness

	Mean (SD)	Median	Range
Duration of illness before admission (days)	33.1 (24.1)	28	7-91
Duration of admission (days)	10.1 (11.1)	6	1-46
Time from discharge until improvement (weeks)	3.1 (2.1)	2	0-10
Duration of illness until improvement (weeks)	9.3 (4.2)	8.3	3-18
Time from discharge until better (weeks)	5.5 (2.8)	5	0-11
Duration of illness (weeks)	11.7 (4.7)	10	4-20

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Parental knowledge and anxieties—Thirteen mothers said that they had known little or nothing about whooping cough before their child's illness. Nevertheless, 16 had thought that it was probably a moderately severe or severe illness, and most seemed well informed about its possible duration. After the illness 17 mothers thought that it had been more severe than they had envisaged, and even those who had seen whooping cough on television programmes had underrated its severity. The episodes of choking, apnoea, or cyanosis were the most distressing aspect of the illness for 15 mothers, and