PRACTICE OBSERVED

Practice Research

Psychotropic drugs and accidents in a general practice

G A C BINNIE

Abstract

The incidence of accidents over five years in a group of patients who had taken benzodiazepines, phenothiazines, and antidepressants for more than a year was compared with that in control patients who had not been taking tranquillizers. The patients taking benzodiazepines had a statistically significantly increased risk of having an accident compared with controls, though this was not true when they were not taking the drugs.

Introduction

Benzodiazepines have been implicated in causing road traffic accidents,¹ and it was thought that the association between intake of psychotropic drugs and accidents reported in a general practice population over five years might indicate the place of such drugs in the aetiology of all types of accidents. It has been suggested that accidents might be associated with the illness for which psychotropic drugs are prescribed,² and it was thought that the incidence of accidents in patients who had taken psychotropic drugs for more than 12 months in the five years could be compared with the incidence of accidents when these patients were not taking psychotropics.

Subjects, methods, and results

The records of all patients aged over 15 years who were patients of the practice for the whole of the five years 1977-81 were inspected. Takers were those patients who had been prescribed benzodiazepines,

phenothiazines, or antidepressants at any time in the five years, and for any indication, not necessarily psychiatric. For each taker a control was found whose record was next alphabetically in the practice records; the control was of the same sex, within three years of the same age, in the same or next social class, and had not been prescribed any psychotropic drugs in the study period.

Any accident to takers or controls that had been brought to the general practitioner's attention during the study period was recorded (Royal College of General Practitioners' classification 470-487), together with the psychotropic medication being taken at the time of the accident by the case in the case-control pair. Virtually all non-trivial accidents were recorded, as reported elsewhere.³

Controls could not be found for 16 takers, which is not uncommon in surveys of small populations, and a total of 205 pairs were entered in the study. Eighty-four pairs had had no accidents, 79 pairs had had at least one accident but not at a time when the taker was taking psychotropic drugs, and 42 pairs were identified where one person had had at least one accident when the taker was taking such drugs. The 42 matched pairs in which an accident had taken place when the taker was receiving psychotropic drugs were compared by McNemar's test, but the difference was not significant, and there was a similar finding when Wilcoxon's test was used.

The annual incidence of accidents was calculated for patients when taking each of the three groups of psychotropic drugs and, for those drug takers who took drugs for more than one of the five years of the study, for the period during which they were not taking drugs. The rate of accidents was compared with that of the control group (table). This showed a statistically significant increased risk for the patients receiving benzodiazepines compared with the controls; no increased risk was shown for the long term takers while not taking drugs, or for takers of phenothiazines and antidepressants.

Discussion

Betts *et al* found that chloridazepoxide and trifluoperazine appreciably altered driving behaviour in low speed performance tests.⁴ Skeggs *et al* suggested that takers of benzodiazepines had 4.9 times as many accidents as non-takers but could not confirm any increased risk to takers of major tranquillizers.⁵ The number of road traffic accidents in this study was negligible

She was worried that he might be taking drugs. She had found a couple of white tablets in his bedroom, and he was apt to disappear for several days in a row, allegedly to London, and his behaviour was always worse for a day or two after he returned. He would never say exactly where he had been, who he had been with, or what he had been doing.

"Ever taken drugs, Adrian?"

"Cotta cigarette? ... Cheers. Doctors shouldn't smoke."

"The sensible ones don't. Nor should you. Have you ever taken drugs?"

"Yeah. Tried them all: speed, acid, downers—ever tried riding a scooter on a road? No? It's fantastic, man. Sometimes the handlebars go soft, like spaghetti; just flop about in your hands."

"Sounds dangerous."

"Not if you control it. You can control it if you're strong enough. All you have to do is imagine they are, say, a broomstick, and they go stiff again."

"Still take them?"

"Gave them up. Too expensive. Never take anything now."

At least he was talking; and he wasn't calling me "man" all the time. Keep still; say nothing.

"Sometimes it stops."

"What stops?"

"The traffic, when I go by. But they won't find me."

"Who won't?"

"The Jam say it, man. You should listen to The Jam."

The consultation was evidently at an end. I found mother and father in the kitchen, looking at me eagerly for some solution that I could not provide. I told them that I would make an appointment for psychiatric outpatients as he seemed disturbed, but could say little more as he ambled into the kitchen to make himself some coffee. They were clearly disappointed as I wished them goodnight.

Driving home I pondered. I was really rather, if not totally out of my depth. The chances of him attending outpatients were minimal. I was reluctant to bring out a psychiatrist on a domiciliary visit as it might shatter the tenuous relationship that had formed, and might be needed in the future. He had not actually done anything any harm, anyway. Either the problem would develop or fade away.

What had I learnt? In view of the family circumstances, being the product of a previous liaison between a doctor and a family, some acting out as he sought his identity was quite reasonable. Bad tempered adolescents are very common even in this orderly part of the world; were his parents expecting too much? Certainly he had been taking drugs, though he said he had stopped, but he could be lying. Then there was that curious glimpse of paranoia at the end, like a shutter opening and closing; could he be developing schizophrenia? I was tired.

The key to the situation never crossed my mind.

Unfortunately, the problem did not fade away. I became quite unpopular with my partners as there were several calls to the house because of Adrian's difficult behaviour, which always seemed to occur when I was off duty, and one Saturday morning one of my partners came within an ace of admitting him under the Mental Health Act, only he couldn't find the forms and it all blew over.

I went to see him, gave him a few 25 mg tablets of Largactil that I felt fairly sure he would abuse or not take at all, and still hoped the problem would blow over. Indeed, he still hadn't done much amiss, but his parents were telephoning every day or two demanding that something should be done, though precisely what was not clear as he did not want help, and he had not actually done anything that could be construed as a danger to himself or anyone else.

Finally, the crisis broke, when I was on duty. It was a mild autumn evening when I reached the house. For the first time Adrian was frightened. He poured out details of the complex conspiracy that surrounded him. It was almost incomprehensible, but clearly of cosmic dimensions; he was about to be engulfed in the overwhelming powers of evil that swirled about him. He

accepted my offer of sanctuary in the local psychiatric ward, and I set off ahead while his mother brought him along behind in the family bonshaker.

We made it intact, with Adrian cowering in the back seat. The ward was busy and there was some delay; meanwhile Adrian was feeling a bit braver and wanted to go home, and if no one would take him he would find his own way. We were told that he couldn't actually be admitted there—the property was another hospital 10 miles away. I signed my half of the form, we popped Adrian into the back of the bonshaker, and his mother drove off at a furious pace through the night, handling the great car, which only gripped where it touched, with remarkable skill.

We drew up with a jolt in the forecourt of the magnificent, grout stone building, only to be faced with the most surreal event of an evening that was rapidly sliding out of control; the staff were on strike!

In the chilly porter's lodge I pleaded with stony faced folk of uncertain status to take Adrian as an emergency despite the fact that he was properly sectioned. It was like trying to get contraband into a Ruritanian castle.

In due course they relented and couldn't have been more helpful, and Adrian was admitted.

He was sent home in a few days. Some weeks later he appeared in surgery with his mother. They had been to America, and Adrian had met his real father and really liked him. They were going to Australia to start a new life. "Funny behaviour?" Oh that was an amphetamine psychosis, said Adrian.

Lessons learnt

What did I learn? Amphetamines send you loopy. Drug takers tell lies. Drug taking may be symptomatic of a deeper problem. Listen for the factor no one mentions, in this case, his father. Hang on to your hat.

I don't know; I shall probably never meet this problem again.

Diary of Urban Marks: 1880-1849

At this time the regulation fee for a confinement was one guinea which included everything. In my first year I did 33 confinements, in the second 55, and in the third 88, after which I lost count. But in the years after the war and until the introduction of the maternity hospitals, Dr Thomas and myself used to do an average of 175 yearly, so that we have had an extensive experience in maternity work. It is a curious thing, too, in connection with the above figures that in my first year I took 2303, in the second over 2900, and in the third 2800. I had no sooner started in practice than the income tax surveyor sent me a demand for £12-10-0. I was dumfounded for a few moments but on recovery I went round to Nelson Jones and asked him for his advice. Then I went to see the surveyor and pointed out that I had only just taken over Trinity Place and that I had not a bean in the world. He merely said that as the assessment was the same as for John Davis I should have it to pay and claim back if I did not make the amount. I asked him to be merciful and he seemed to be a kind man. After some discussion he consented to wait for a year on condition that I went to him at the end of the year and showed him what I had earned. On the first of February 1899 I was waiting for him on the doorstep of his office with my account book and a list of my expenses for deduction. These had been made out for me by my very good friend, Nelson Jones. He had insisted that I should claim for two suits which had been ruined by drugs and blood and for pens and pencils and every small thing which had been used in the course of my work even if it only cost a penny. The surveyor smiled at the list of expenses but nevertheless allowed most of them. After that I had no trouble with the income tax authorities until after the great war but that is another story which I will narrate in due course.

Accidents in drug takers; in long term drug takers when not taking drugs; and in controls

Drug	Total No of years at risk	Accidents	Rate of accidents	Accidents expected	χ^2
Benzodiazepines	106	18	0.17	10.8	6.3
Phenothiazines	46	4	0.09	4.8	NS
Antidepressants	46	5	0.07	4.8	NS
Drugs for more than 1 year when off drugs	49	13	0.27	9.3	NS
Controls	1024	47	0.046		
Total	1340	136	0.101		

and unlikely to have any noticeable effect on the conclusion that everyday activities of patients in general practice seem to be made more hazardous by taking benzodiazepines. This effect was not shown in takers of major tranquillizers or antidepressants.

There is no support for the suggestion that patients taking long term minor tranquillizers are less liable to have accidents than when their anxieties are untreated. Phenothiazines and antidepressants seem not to contribute to causing accidents, but this may be because of the small number of takers in this study; in any case, increased use in place of benzodiazepines would be counterbalanced by increased toxicity in overdose. When prescribing benzodiazepines the risk of contributing to everyday accidents must be considered.

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A Difficult Case

Contributions to this series are welcome for consideration

Adrian

COLIN SMITH

"How can I help you, man?"

"I don't know. Your parents called me because you'd been behaving badly and been making a lot of noise."

"Well, you can see I'm all right, and I just don't need you, man."

It was all a bit unreal—he was draped along the sofa in the well appointed lounge of a well appointed detached four bedroomed house on one of our smarter little country housing estates, and I was sitting on the floor with my elbow on an armchair. We sat in silence for a long time, he was gazing through the cigarette smoke at the ceiling apparently lost in the rock music on the record player, and I was just gazing into space.

His harassed mother had mentioned his behaviour to me on several occasions in the past few weeks, and once had brought him to surgery when he had countered my every inquiry with a clever remark and a superior smile, which had got us nowhere. This time she had telephoned because he had been shouting at his

parents, his little sister, and the neighbours, and had finally kicked in the glass panel by the front door.

It was midnight.

"Did you say anything about marmalade?"

"I beg your pardon?"

"You listen to The Jam? ... They say it all, man."

"Another long silence. I had no idea what to do, but it was my night on and I could be reached, so I decided to hang on and hope that something useful would emerge. The rest of the family had completely disappeared. I suppose we were forming some sort of relationship, though his cool, superior attitude and mid-Atlantic accent was a bit hard to swallow.

He must have been about 18 or 19, the product (as they say) of a previous liaison. I had known the family for a decade or so, but hardly knew him as he was never ill. His mother I knew well—a tough, attractive little person with cropped hair; highly intelligent and given to rather fascinating episodes of depression with deep philosophical and cultural overtones. She had been born and well educated abroad, and I had the impression that she yearned for rather more than life in a sleepy English village could provide. I admired her courage and forthright speech; she seemed to be asking no favours even when depressed. I think that she considered me a nice enough chap but not awfully bright, particularly at dealing with difficult adolescent patients.

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First Five Years in Practice: the 1960s

Hard times

SIMON JENKINS

The career intentions of final year medical students have now been extensively studied,¹ but when I was a final year student in 1959 there was no such guidance available to judge whether I differed from the norm in being undecided about my objectives after qualification. I could see no further than the final exam, was guided more by what I did not want to do than by any positive plan. I did not want to spend any more time in Birmingham, the city of my youth, nor did I wish to stay in the boresome atmosphere of the teaching hospital, where I had been for what already seemed an eternity.

When I completed my pre-registration year at the North Staffordshire Royal Infirmary I was at a loose end still, with no objective in mind. I thought about emigrating but deferred that idea for a year or so as our daughter was only a few months old and we preferred the security of a familiar country to the potential hazards of a less well developed health service in warmer climates. I happened upon a locum senior house officer post while I hunted around for a substantive one. To my amazement I secured a job in medicine and rheumatology at Manchester Royal Infirmary—a teaching hospital unconnected with my graduating medical school. By now I had decided that a hospital career was in prospect, and the first hurdle was the membership examination of the Royal College of Physicians.

During this residency two factors changed my mind. I had a family that I rarely saw and I was getting more and more into debt. I was reassured by my chief that I would be guaranteed a consultancy by the time I was 32, but that sacrifices would have to be made. The sacrifices would mean even less time with my wife and child and financial hardship. My overdraft then stood at £50, so after six months in a job that I had been surprised to obtain, it was with a sense of failure mixed with relief that I looked for a way out into general practice.

Buyer's market

In 1963 it was a buyer's market, somewhat akin to the present day. I looked in the *BMJ* and registered with the BMA Personal Services Bureau. I added my name to the hospital noticeboard and let it be known on the grapevine that I was available. I think I had four replies to my inquiries. One interview was conducted on the telephone. One I had on a Sunday as they were too busy to interview the applicants on any other day. The principal, who invited me to his house—I never saw the surgery—was glib at the time. I remember being offered a salary only slightly more than I was then earning. As the assistant I would have to live in the practice area and take equal duties with the other three partners, but there would be no guarantee of a

partnership and I would have to buy a house nearby. They were unable to tell me if I had got the job until they had seen a few more people. Although they said they would let me know, I am still waiting to hear from them.

I finally accepted an offer of an assistantship with a view to a partnership promised after approximately 12 months. No contract was given and parity was not even discussed. But the job had its attractions. There was a house rent free attached to the surgery, a regular and much larger pay cheque than I had been used to, and a sense of permanency that meant I was settled.

The experience of seeing patients who, though they preferred to see my employer, came to see me as "their doctor" was very new and I felt that this was really what medicine was all about. I seemed at last to have found my vocation. Patient gratitude was more apparent in practice than it had been in hospital, and the patients seemed to be more understanding of my problems than I was of theirs. After all, they were experienced with previous assistants in the practice and I was fresh faced and green.

As the months passed I grew more and more interested in the incredible pathology that I unearthed. Patients were surprised when I took their blood rather than send them to the hospital outpatient department. In the first 12 months I had discovered five new cases of disseminated lupus erythematosus. During that time I established very supportive relationships with the local hospital consultants, mainly because we did our domiciliary visits together, which regrettably is a thing of the distant past.

"Be patient"

But gradually suppressed disquiet began to filter through. In the end even I became concerned about those patients who asked me when I was leaving. Although I refused to let my assistantship become one with a view to partnership, it drew but a whimsical response. After I had been there for more than a year the number of occasions on which I was questioned about my mind and state of departure increased. I was asked to resign. I took my courage in my hands and broached the subject yet again with my employer. I was asked to be patient, given a pay rise, and promised a partnership soon. Grateful as I was for the extra cash, patience was not my forte. I was asked to look around for an alternative and firmer offer of principal status. I was saddened by the decision as I had grown used to the people in the town and to the comfort of "being known." My feeling in the early summer of 1963 was of having waited a lot of time, but in retrospect I had acquired some useful experience. I had spent about 15 months as an unpaid clinical assistant to the obstetric department which more than qualified me for admission to the obstetric list through section VI. I had familiarized myself with the local hospitals and health services, and most important, I had acquired a new wisdom about the need for a written partnership agreement and a clearer definition of the duties and responsibilities that a partner should expect.

Again I used the grapevine to find out if there were any

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