visualised, but the presence of D_2 receptors is controversial, with the six or so studies being evenly divided. The most recent work suggests that they are present, but in much smaller numbers than D_1 receptors. In these circumstances, it seems unwarranted to dismiss the existence of a dopamine innervation of these regions.

The strengths and weaknesses of the dopamine hypothesis have been frequently rehearsed, most recently by Crow (1987). Briefly, its most serious drawbacks are the long time-course of the neuroleptic effect, its incompleteness in many patients, and perhaps also the relative lack of psychotogenic activity of direct dopamine agonists. These, though, must be balanced against the powerful, unrefuted circumstantial evidence implicating dopamine in psychotic and antipsychotic drug actions. *In vivo* receptor binding studies have the potential to test the dopamine hypothesis directly. The first such study on drug-naive schizophrenic patients was positive. The second (Farde *et al*, 1987) (which has not yet been reported in full) gave overall negative results. Even so, 10–30% increases in dopamine receptors were observed on the left side in 4 of the 15 schizophrenics, but in none of the controls (Farde *et al*, 1987).

Finally, it is possible, as Dr Kerwin suggests, to conceptualise schizophrenia as a collection of heterogeneous disorders. Clinically, however, none of the attempts to overthrow Kraepelin in this way have met with wide acceptance. Aetiologically, it may well be that schizophrenia will ultimately fragment into more than one disease entity (cf. Murray *et al*, 1985). Nevertheless, it is arguable that this will not invalidate the unitary pathogenetic basis of the core phenomenological syndrome.

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Behavioural Psychotherapy in General Practice – A Response

Sir: It is a little surprising, if I follow Professor Beech's reasoning correctly (*Journal*, September 1987, **151**, 411), that despite the paucity of knowledge and experience that he feels are required by psychiatrists, some psychologists in private practice or as authors of texts (Beech *et al*, 1982), or even within the NHS, should wish to use the title 'consultant' or 'doctor' (the latter legitimately from possession of a PhD, but both potentially misleading in the NHS) – as this is presumably partly with the idea (Anon, 1983) of attracting that indefinable, but desirable, aura (probably with quite primitive roots) which surrounds their medically qualified psychiatric colleagues.

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Heroin Abuse in India

Sir: Fraser *et al* (*Journal*, August 1987, **151**, 254–256) report on heroin abusers admitted to an acute psychiatric unit in Glasgow, and raise doubts about the value of hospital admission in the management of abusers. We had a somewhat similar experience with heroin abusers in New Delhi (Adityanjee *et al*, 1984) in the early 1980s.

Heroin abuse, which was conspicuous by its absence in all Indian epidemiological surveys on substance abuse carried out prior to 1980, made a dramatic and sudden appearance in the metropolitan cities of India (Saxena & Mohan, 1984). There were no cases of heroin abuse registered with the de-addiction clinic of AIIMS hospital, New Delhi, prior to 1980. Between January 1981 and May 1984 a total of 105 heroin abusers were registered with the de-addiction services. All the patients except one were males. Three-quarters of abusers were in the age group 21–30 years. More than two-thirds were unmarried. A little less than one-third were unemployed at the time of contact with de-addiction services. The duration of abuse was less than one year

in two-thirds, and less than a tenth reported a duration of abuse of more than three years. The most common route of consumption was smoking (74%), followed by 'chasing' which accounted for 17%. The intramuscular route was used by less than 2% of patients. Most of the patients also abused drugs other than heroin. The most preferred was cannabis (50%), followed by alcohol (46%) and raw opium (21%).

Fifty patients dropped out after initial assessment, while the remaining 55 entered the treatment programme willingly. Twenty-one were treated as in-patients, and the rest as out-patients, for management of acute withdrawal symptoms. There were no specified criteria for hospitalisation, except distance, although in the later half of the study the majority were treated as out-patients. This change resulted from a change in policy regarding hospitalisation of heroin addicts, in view of the limited availability of acute psychiatric beds and the gradually increasing numbers of addicts.

In the initial phase, gradual withdrawal was attempted but, subsequently, sudden and abrupt withdrawal under medical supervision was the rule. This was again due to a change in local policy. Of the 55 patients who entered the programme, 44% were abstinent after one week, and 48% were totally abstinent at one month follow-up. Observation suggested a poor outcome and frequent relapses on follow-up. This led us to reconsider the initial policy of mandatory hospitalisation. Subsequently, heroin withdrawal was attempted routinely on an out-patient basis. Withdrawal symptoms were managed symptomatically with minor tranquillisers and low doses of antipsychotics. Even ultra-short detoxification using clonidine was done on an out-patient basis in a few patients.

The rapid increase in the number of patients with heroin dependence in most of the South Asian countries (Adityanjee *et al*, 1984; Mendis, 1985; Mohan *et al*, 1985) has led to a situation in which the already inadequate psychiatric and general health services are suddenly confronted with a mass of heroin addicts. Since in our experience hospitalisation is not of much use, out-patient detoxification using clonidine may be the most economical model in countries with resource constraints.

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No Fixed Abode

SIR: We were interested to note that the "no fixed abode" (NFA) patients described by O'Shea *et al* (*Journal*, August 1987, **151**, 267–268) had considerable physical morbidity and more legal records when compared with patients with a fixed abode.

We found a similar situation in two comparable studies, one of 100 persons of NFA and the other of 72 men composed of both those with NFA and those living in a Salvation Army hostel and a common lodging house (Weller *et al*, 1987; Weller & Weller, 1986). Of the respondants in the larger 1987 survey, 66% did not have contact with a GP, a comparable proportion to our 1986 survey (53.6%), and 36% were not receiving any of their benefit entitlements, a worse situation than in the earlier survey (9.1%).

We examined for the effect of active psychosis or previous in-patient treatment, which were found to be strongly associated with a history of imprisonment, an outcome befalling 78% of the combined groups of this NFA population in the 1987 survey, as against 42% of the residual population ($P<0.005$). The effect was yet more striking in the 1986 survey, of mixed NSF and hostel occupants (75% compared with 17%), the statistical significance being increased if the data from our two surveys are combined ($P<0.001$).

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