Ethnic differences in self-poisoning

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Summary

Factors associated with self-poisoning have been compared between the immigrant communities of West Birmingham and the local indigenous population. The annual rate of admission to hospital with self-poisoning is increasing most rapidly in the West Indian community which, together with the Asian, shows a lower mean age and greater incidence than the Caucasian population. Reasons for overdosage and admissions offered by the various ethnic groups are also compared.

Introduction

Self-poisoning is a common phenomenon particularly in Western societies, but is uncommon in less technologically orientated cultures. In Birmingham 3 ethnic groups, Caucasian, West Indian and Asian, are readily identifiable and all 3 have very different backgrounds. Self-poisoning appears to vary between these groups particularly with respect to social and psychiatric aspects so this pilot study was undertaken to compare the 3 groups.

Methods and results

A standard questionnaire on the physical, social and psychiatric aspects of self-poisoning was applied to all patients admitted for this to Dudley Road Hospital, Birmingham, during January 1976 to December 1979. Patients were classified as Caucasian, West Indian and Asian, according to their ethnic origin. Asians were defined as any patient whose ethnic origin was the sub-continent of India. The vast majority were Sikhs but a small proportion were Moslems and Hindus. Unfortun-

nately, there is no reliable information about the population in Birmingham from which these groups were drawn.

A total of 2001 patients were studied, 1665 were classified as Caucasian, 160 West Indian, and 176 Asian. The rate of increase for all patients admitted with self-poisoning averaged 11.1% over the 4 years. For the West Indians it totalled 31.5%, for the Asians 14.5%, and for the Caucasians 9.5% (Table 1). The age was lower in the immigrant groups ($P < 0.01$ for West Indians and Asians; $P < 0.05$ for the Caucasians) and the sex ratio showed a greater preponderance of females. The proportion of patients of non-Caucasian origin born in the country of ethnic origin fell between 1976 and 1979 (Table 1).

With respect to medical and toxicological aspects of self-poisoning all communities behaved in a broadly similar manner. The Asians tended to take fewer different preparations in each poisoning incident (1.3/patient-episode) compared with the other groups (1.8/patient-episode) and alcohol was less common accompaniment. The principal substances were again similar in the different groups (Table 2) although there was a slight excess of substances not normally taken by mouth (non-ingestants) and antihistamines in the Asians (Table 2). The immigrants ingested rather less benzodiazepines. In the vast majority the overdoses were organically trivial and this was the same throughout the different communities (12%).

The communities showed marked differences between each other with respect to social findings (Table 3). Thus, the immigrant groups had

TABLE 1. Population characteristics of racial groups taking overdoses

	Mean annual increase (%)	Mean age (years)	Sex ratio (F : M)	Per cent. married	Per cent. born in country of ethnic origin	
					1976	1979
Caucasian	9.5	29	1.8 : 1	32	100	100
West Indian	31.5	22	3.3 : 1	15	69.6	48.0
Asian	14.5	21	3.5 : 1	57	83.9	70.3

markedly lower incidence of previous self-poisoning incidents or contact with the psychiatric services compared with the Caucasians. This may reflect the younger age group of the immigrant patients. Attempts were made to classify in general terms the

TABLE 2. Drugs and racial groups

	Caucasian (%)	West Indian (%)	Asian (%)
Minor analgesics	20	28	22
Benzodiazepines	37	19	18
Tricyclics	8	8	9
Non-benzodiazepine hypnotics	5	14	13
Antihistamines	1	4	10
Non-ingestants	3	2	9
Miscellaneous unclassified	26	25	20

Table 3. Social factors for self-poisoning (%)

	Caucasian	West Indian	Asian
Previous self-poisoning and psychiatric treatment	31	20	10
Separation from parents	10	28	8
Immediate problem as indicated by patient:			
(i) Interpersonal problems (parents, spouse, boy/girl friend)	36	50	22
(ii) 'Cultural'	—	—	28

immediate precipitating causes for admission. Interpersonal problems between the patient and his parent, spouse, or boy/girl friend were very common in all groups. Problems arising from trans-cultural differences were particularly prominent in the Asians; for example, Asians brought up in this country frequently identified arranged marriages between 2 partners, one having lived for many years in Britain and the other brought up in the Indian sub-continent, as a cause of excessive stress and overdosage. If anything, the repeat rate of self-poisoning episodes was higher in the Caucasians (9.6% compared with 7.6%) although this did not reach statistical significance.

Discussion

There are many problems in carrying out a study of this nature. Details of the catchment population are lacking as census data are limited and are collected at long intervals. Furthermore, the ethnic origins of the population are not recorded.

The outstanding feature of this study was the increasing annual rate of self-poisoning in the West Indians. The increase of 31.5% for West Indians is significantly greater than the 9.5% for Caucasians and appears to be too great to be accounted for solely by an increase in the population at risk. Attempts to substantiate this by approaching the local schools tended to confirm this. Problems which the patients identified as being due to differences in culture between the immigrant community and the prevailing local culture occurred only in the Asians (Table 3). Although there were differences between West Indians and Caucasians (for example, the former have low age and low marital rates), these factors were not recognized as important by the respective groups themselves.

If self-poisoning represents an inarticulate 'cry for help' or even a 'cry of frustration', then the increase in immigrant groups requires further investigation.