

Personal and Social Correlates of Types of Drug Abuse in Dublin

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Our purpose in this article is to throw light on the extent to which Dublin drug abusers belong to distinct social and demographic groups. Specifically, we are interested in ascertaining the personal and social correlates of opioid⁽¹⁾ use and in providing a profile of seriously at-risk groups.

The study builds on that of Kelly and Sammon (1975) which describes the characteristics of a group of abusers considered as a whole. Like that study, this is confined to clients of the Jervis Street Drug Advisory and Treatment Centre, a free clinic attached to a large Dublin hospital. Likewise, much of this report is based on the clients' account of themselves, an account which may not always be reliable.

Clients of the Centre are referred by a variety of statutory and voluntary agencies and are also self referred. It is reasonable to assume that all have a problem of some kind connected with drugs, whether physical, as in the case of an abscess arising from a dirty needle, legal, as in the case of prosecution for possession, vocational, as in drug-induced difficulties in the course of employment or study, or social, as in the case of rejection by family or friends because of drug use. Some come without external pressure because they fear they are in danger of becoming addicted, with adverse consequences for their lives in general. We use the term 'abuser*' rather than 'user' in view of such associated problems rather than because of the unprescribed nature of most of the drug taking⁽²⁾

Incompleteness of data was a problem we frequently encountered in examination of the files. This was often due to the very superficial nature of the contact which sometimes consisted of no more than a telephone call. Faced with the problem of scanty information in many cases, we have chosen to work with a small number of cases with complete information rather than a large number with some information missing. Our sample is accordingly not a complete one and the possibility must be noted that some of the cases excluded because of inadequate data represent a less addicted (because less recorded) group than those included. Also excluded were some few clients with an alcohol problem only.

A cursory examination of the files suggested that opioid use characterised a group more deprived and delinquent than the others. However, only small groups, with one exception, seemed to have confined themselves to a single drug or type of drug such as the opioids. Many were poly-abusers and took three or more drugs. The exception was a fairly large group who had taken cannabis only. An associated group were those who showed a marked preference for cannabis which they frequently supplemented with L.S.D. Another impression from the files was of a

(1) i.e. the opiates such as heroin, morphine, opium and pethidine, plus such synthetics as Diconal and Palfium (Dipipanone Hydrochloride BP, Cyclizine Hydro-chloride BP and Dextromoramide).

(2) A small minority of the abusers managed to get drugs legitimately through prescription.

small group of barbiturate takers characterised by serious personal and social problems. We used these impressions to form the basis for our analyses.

Our findings relate to the Dublin and Dun Laoire Urban Boroughs as the great majority of the Centre's clients, over 90%, were born in those areas.

Methodology

To establish correlates of opioid use a survey was made of the subjects of Kelly and Sammon's study, assigning these to opioid and non-opioid groups. This sample numbers 537, being 2⁽³⁾ less than their sample. It consists of clients who between October '71 and December '73 completed a standard questionnaire on basic demographic factors, personal history, family background and drug history. Since the results of this survey did not throw much light on the development of opioid abuse, it was decided to supplement it with a survey of all clients from the Centre's opening in October '69 to mid-August '77 for whom

Table 1

Opioid takers compared with other drug takers (October '71-December '73) on selected variables

	Opioid Takers (n=181) %	Remainder (n=356) %
1. Male*	89	74
2. Aged under 16 at first reported drug use ⁽¹⁾	42	37
3. Aged 20 or over at contact*	62	33
4. Married or common law union	8	5
5. Unskilled or semi-skilled manual working group ⁽²⁾	31	34
6. Unemployed*	63	52
7. Primary education only†	43	36
8. Charged in Court prior to drug taking*	41	29
9. Solitary drug taking usual*	32	16
10. First drug(1) taken abroad*	30	12
11. History of injecting*	85	17
12. Physical complications associated with drug taking (i.e. Hepatitis, Jaundice)*	22	6

(1) Excluding alcohol.

(2) Rated on father's occupation in view of the youthfulness of the sample.

* Difference between proportions statistically significant.

† Difference would have been significant if a one-tailed test had been used.

appropriate information had been recorded and who were abusers in the sense of having more than an alcohol problem. This second sample numbers 1,175. The first sample was assessed for 12 variables, the second for 15 variables. These two surveys constitute the first part of the analysis. Part 2 involves a more detailed study of clients between mid-October '73 and mid-August '77 and examines differences between 6 types of abuse. Because of inadequate information, only 269 out of 563 clients were assessed in this part of the study. Since more than half the subjects assessed were rated as abusing drugs on a daily or almost daily basis, there is a strong possibility that those excluded from consideration included a high proportion of less addicted clients.

Chi-squared tests are used to assess the chance probability of differences arising between proportions in groups with specified characteristics and differences with a probability of occurring at 5% or less are regarded as significant. In Part 2, cluster analysis is used to identify naturally occurring groups with a view to comparing such groups with those based on type of

⁽³⁾ Information was not adequate in the case of these two to allow for allocation to opioid or non-opioid group.

abuse. This cluster analysis, which involves the use of an algorithm from the CLUSTAN computer programme, provided a number of solutions each of which featured a different number of clusters and from which the most meaningful clustering was selected by inspection of cluster characteristics.

Results

Part 1: Of 537 subjects in the first sample, some 181, or about one-third, had taken an opioid other than in a cough mixture at some point in their drug history. Opioids which had been used were – heroin (20%), morphine (19%), Diconal (9%), opium (6%), Pallium (5%) and pethidine (2%). Characteristics of the overall sample have already been described by Kelly and Sammon (op. cit) who note the predominance of males (79%), the high incidence of Court appearances (33% prior to the onset of drug taking), the over- representation of semi-skilled manual workers (22%) and the very high level of unemployment (55%). Our results for the comparison of opioid abusers with others are given in Table 1. Since there is little difference between reported age at first drug use, the opioid takers would seem to have been involved with drugs for a longer period before referral to the Centre. Their higher rate of unemployment may reflect a more lengthy involvement with drugs although their higher delinquency rate prior to drug-taking suggests background differences not attributable to drug-taking. Supportive of the impression of prior background differences in terms of social deprivation or stress is the finding that fully one-sixth used an opioid before any other drug. In Part 2, we compare opioid takers and non-takers with period of drug use held constant.

The greater delinquency of the opioid abusers prior to the onset of drug taking was accompanied by a similar difference in respect of delinquency after drug taking: 23% of opioid takers as against 10% of the others were in Court after the start of drug taking on such charges as larceny and breaking and entry, and 30%, as against 7%, had been charged with illegal

Table 2

Opioid takers compared with other drug takers (October '69-August '77) on selected variables

	Opioid Takers (n=456) %	Remainder (n=719) %	Total Group (n=1,175) %
1. Mother died before client 21	5	4	5
2. Father died before client 21	12	9	10
3. Mother current psychiatric problem (clients under 21 only)*	16	9	11
4. Father current psychiatric problem (clients under 21 only)	5	3	4
5. Mother drinking heavily (clients under 21 only)	3	2	3
6. Father drinking heavily (clients under 21 only)	8	8	8
7. Parents divorced or separated	8	4	6
8. Parents currently in conflict	27	35	32
9. Adopted or fostered	1	2	2
10. In institution for less than 3 years when under 21	6	2	3
11. In institution for 3 or more years when under 21	3	2	3
12. Reared by relatives other than own parents for at least 3 years	1	2	2
13. Drinking heavily	17	18	17
14. Separated from spouse	6	3	4
15. Subsequent death	4	1	2

NOTE: Paternal alcoholism was subsumed in paternal psychiatric disorder. A similar procedure was followed in respect of alcoholism and maternal psychiatric disorder. Drinking was rated as "heavy" when regarded by the client or members of his family as constituting a problem. Variable 8 was assessed mainly in respect of those who completed the questionnaire which provided data for the first survey. This questionnaire included an item about the parental relationship. Total n for variable 8 is 389, of which the opioid group numbered 168. As regards variable 9, 13 had been adopted, 5 fostered.

*Difference between proportions statistically significant.

possession of a drug. Their high delinquency rates resemble those reported by other researchers such as James (1969), Willis (1971) and Mott and Taylor (1974)⁽⁴⁾. Both opioid takers and others showed a preference for cannabis or L.S.D. as first or second drug but one-sixth of the opioid takers started on an opioid and about the same proportion took an opioid as second drug. Although some differences emerged between the groups, which show opioid takers as more delinquent or disadvantaged and are related to the mode of administration of the drug, the results do not indicate radical psychosocial differences. In the second comparison of opioid takers and others, we assessed personal and domestic circumstances more closely.

The 1,175 members of the second sample represent 78% of all clients up to mid-August '77. In 11% of cases only the barest details of age and sex had been recorded and in a further 11% of cases the drug problem was confined to alcohol or not enough information had been recorded to warrant assignment to an opioid or non-opioid group. Table 2 compares the two groups, 456 opioid takers (39%) and 719 other abusers, on 15 selected variables.

The only difference attaining significance is that relating to maternal psychiatric disorder, which is highly significant ($p < 0.001$). Most of these disorders were described as 'nerves' or depression and in the great majority of cases the mother was on psycho-active medication. In one-third of these cases the mother was clearly under family stress such as that arising from an alcoholic or psychiatrically disturbed husband. Apart from this difference, the table shows up the kind of personal and family problems associated with drug abuse in Dublin. The alcoholism of parents (11%) and the clients' own alcoholism (17%) seems a specifically Irish dimension of drug abuse. In respect of parental loss during childhood or youth⁽⁵⁾ and in level of institutional experience the overall sample seems more handicapped than would have been expected for the general population. The proportion with institutional experience (3%) is about double what one would expect.⁽⁶⁾ The number adopted as children is low, the 11 such cases representing only 0.15% of all children in the Republic in the period '53 through '61. In contrast, those of the 1,175 drug abusers born in Dublin or Dun Laoire during that period (about 57%) represent 0.59% of the total of 118,066 births indicated by the '56 and '61 Census Reports for Dublin and Dun Laoire. Thus, adopted children would seem somewhat less at risk than others, although some of the abusers who had been adopted seemed to have encountered problems specifically related to their adoption. Some had not been adopted until over a year, some had not been told about their adoption when they should have been and some were effectively only children or only adopted children.

Part 2: Our comparisons so far have combined regular opioid takers with those who take opioids less frequently. Moreover, we did not distinguish subgroups within the non-opioid group. In order to remedy these defects we examined the records of 563 referrals to the Centre between October '73 and mid-August '77 approximately with a view to establishing the characteristics of the following groups at initial contact with the Centre:—

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- (4) James found that 77% of 50 non-therapeutic male heroin addicts in London prisons during the summer of '67 had criminal convictions before "addiction". It is probable, however, that the high proportion of addicts with criminal convictions prior to addiction in his study is due to their being selected on that criterion. Willis found that 55% of male patients attending a London treatment centre for addiction, most of whom would have been heroin addicts, had been convicted "before drug use". Mott and Taylor found that 25% of their sample (male and female) of opiate-dependent patients at London psychiatric hospitals had been convicted of a criminal charge prior to any admitted drug use. They refer to a study in preparation by Mott and Rathod which indicates that a third of young male heroin users in Crawley had been convicted prior to admitted drug use.
 - (5) Census data on orphanhood in Dublin and Dun Laoire relate to 1946, the last year for which such information is available. Then the rates of motherless and fatherless children under 15 for those areas were 2.5% and 4.7%, respectively, with a further 0.5% lacking both parents.
 - (6) In the period '53 through '61 an average of about 4,800 children were in residential care in the Republic of Ireland. Assuming an average period of 3 years in care, the total in care during the 9-year period would be 14,400, or 1.6% of the under-16 population of the time

- (a) those who had taken minor tranquillisers such as valium or librium only;
- (b) those who had taken barbiturates only or barbiturates and tranquillisers;
- (c) those who had taken opioids only or mainly;
- (d) those who had taken cannabis and/or L.S.D. only;
- (e) those who had taken at least two drugs, excluding the opioids, or at least one drug, a non-opioid, in addition to cannabis and L.S.D.;
- (f) those whose drug use was similar to those in Group (e) except that they took an opioid at some stage.

These groups formed, respectively, 5%, 2%, 4%, 21%, 23% and 36% of the 563 cases reviewed. The remaining 9%, who were excluded from the analysis, were those who took a single non-opioid drug such as an anti-depressant, amphetamine, cough bottle or volatile agent. We included the very small barbiturate group because of the seriousness of their problems. Table 3 compares the groups for 18 personal and social variables. As already noted, this survey is restricted to 269 referrals because of inadequate information in many cases. As Groups (d), (e) and (f) are relatively large, we have excluded from them all cases where information was lacking on any one of the 18 variables. In contrast, we have included all members of the smaller groups, (a), (b) and (c), indicating as appropriate where the base for the cell percentage is less than the number in the group. In interpreting the Table one must bear in mind the possibility that the picture would look quite different had adequate information been obtained on all relevant cases.

Table 3 confirms the impression from Table 1 of differences between opioid takers and the remainder in respect of Court appearance, age and employment status. More strikingly, it shows marked differences between subgroups of non-opioid drug takers. Groups (a) and (b) are predominantly female, groups (c), (d), (e) and (f) predominantly male. The broad trend from (a) to (f) is from personal inadequacy to cultural deviance, as is evident from the patterns in therapeutic addiction, Court conviction and family inadequacy. Group (a), apart from being largely female, are a young group with a marked history of overdosing and a high level of therapeutic addiction. They have the highest incidence of homelessness. Group (b), the small group of barbiturate takers, also tend to be female but are significantly older than the first group. They exceed all in the incidence of drug and alcohol consumption and psychiatric disorder. Because of their greater age and absence of Court conviction, they seem the least subculturally deviant group. They have the highest incidence of youthful behaviour disorder and the second highest incidence of over-dosing. Group (c), the opioid takers, are second oldest after Group (b) and a predominantly male group. Although they have the second highest intake of drugs, they have a low incidence of overdosing, which suggests a stable, non-suicidal pattern of drug use. They have the highest incidence of therapeutic addiction but the lowest consumption of alcohol, a result perhaps linked with the heavy use of opioids. Instances of family disruption and inadequacy are not frequent in the group which in these respects resembles Groups (a) and (b) rather than (d), (e) and (f). Group (d), the cannabis/L.S.D. users, are also pre-dominantly male and have a low intake of alcohol. These are a very young group of relatively high educational standing and with a low level of unemployment in the context of the overall sample. In respect of Court conviction, the group comes

Table 3
Types of drug abuse (October '73-August '77) by selected variables

SOCIAL CHARACTERISTIC	TYPE OF DRUG ABUSE					
	(a)	(b)	(c)	(d)	(e)	(f)
	Minor Tranquillisers Only (n=30) %	Barbiturates Only or With minor Tranquillisers (n=13) %	Opioids only Or mainly (n=22) %	Cannabis, LSD only (n=40) %	Poly- abuse Excluding Opioid (N=64) %	Poly-abuse Including Opioid (n=100) %
1. Parent died before client 21	10	15	9	25	14	14
2. Family inadequate ⁽¹⁾	22	27	20	47	41	43
3. In institution for at least 3 years before 21	3	8	5	0	3	6
4. Adopted or fostered	7	0	0	3	6	3
5. Drinking heavily	33	46	9	18	34	26
6. Court conviction(2)* (not clearly drug-related)	10	0	27	18	39	44
7. Behaviour problem in childhood or adolescence (including attendance at child guidance clinic)*	10	23	5	3	20	10
8. History of psychiatric disorder†	13	31	9	3	14	11
9. Therapeutic addict ≠	23	15	27	0	0	2
10. No fixed abodes	17	8	9	0	9	5
11. Age under 24*	63 (n=27)	17 (n=12)	52 (n=21)	88	92	74
12. Male*	33	38	73	80	84	85
13. Routine non-manual socio-economic category or less (i.e. Hall Jones Groups 5, 6, 7)	71 (n=21)	78 (n=9)	72 (n=18)	72	79	78
14. Primary education or less	40 (n=10)	50 (n=6)	42 (n=12)	15	39	41
15. Daily or almost daily drug use*	61	92	82	22	46	71
16. Unemployed(3)*	52 (n=23)	46	52 (n=21)	32	50	65
17. History of overdose*	55 (n=29)	38	14	3	20	23
18. Subsequent death ≠	0	0	0	0	0	2

- (1) i.e. parents divorced or separated, parent with current drink or psychiatric problem, mother very dominant or father weak or absent, or subject brought up by relatives for at least 3 years. Ratings were not made for families rated positively on Variable 1.
(2) Two-thirds involved theft and some may have been indirectly linked with drug-taking.
(3) Full-time students counted as employed.

* $p < .05$, + $p < .10$, ≠ expected frequencies too small for computation of chi-square.

NOTE: Because of small expected frequencies, cells were combined for Groups (c) and (0 in respect of variables 1 and 2, and for Groups (a) and (b) in respect of variables 7,8,14 and 17.

between the female groups and the male subcultural groups, (e) and (f). The cannabis/L.S.D. takers are more disadvantaged than any other group in terms of family disruption and inadequacy but this disadvantage is neutralized to some extent by educational level and the comparative absence of unemployment. Group (e), the non-opioid poly-abusers, are the youngest of all. They

have a high level of criminality and youthful behaviour disorder, and include no therapeutic addicts. Consumption of drugs and alcohol is considerably higher than in Group (d), as is the level of unemployment. Group (f), the opioid poly-abusers, are older than (d) or (e), contain the largest proportion of males of any group and have the highest levels of Court conviction and unemployment. Drug consumption is well above that for Group (e) but alcohol consumption is lower, another result indicating a substitutive function for opioids.

When the analysis was confined to those members of the larger subcultural groups, that is, (d), (e) and (f) of Table 3, who had been on drugs less than 2% years, two significant differences were apparent. In respect of non-drug related Court convictions the difference between Group (f) (47%, n=17) and the other groups (16%, n=38) was significant and a similar pattern obtained for severe drug dependence (76% for (f) as against 29% for (d) and (e)). Although the numbers are small, these findings confirm the impression of important background differences, further confirmation being offered by the levels of conviction prior to abuse (41% for (f), 10% for (e) and 6% for (d)). Incidence of unemployment at first contact did not produce a significant difference but the trend resembles that for the other two variables, Group (d) containing 22% unemployed, Group (e) 30%, and Group (f) 47%.

Cluster Analyses

In order to ascertain if the distinctions based on type of abuse would re-appear in the course of empirical analysis, Ward's method of cluster analysis (Ward, 1963) was applied to what may be regarded as the subcultural groups of that Table—i.e. Groups (c), (d), (e) and (f). Ward's method, which is one of the algorithms contained in the Clustan IB suite of Cluster analysis computer programmes (Wishart, 1969), makes use of the variance within clusters as the criterion of cluster formation. At each step in the analysis, union of every possible pair of clusters (initially, individual subjects) is considered and the two clusters whose combination results in the minimum increase of the error sum of squares are united? Groups (a) and (b) were omitted from this analysis because of inadequate information on the educational and social variables. Two cluster analyses were made. The first involved all the variables of Table 3 with the exception of variables 3, 4 and 18, for which the rate of incidence was very low, and with the addition of the variables, type of abuse⁽⁸⁾ and period of involvement. Sample size was 202, a number of cases being excluded because information was lacking on period of involvement. The programme was instructed to find solutions, ranging from 12 through 3 clusters. Inspection of the characteristics of the emerging clusters led to the choice of a five cluster solution as a meaningful organisation of the data. This solution indicated the following groups: Group I, consisting of 99 subjects, and characterised by a high percentage of males (96%), a low level of occupational status (mainly manual working group), a high level of unemployment (over half), a lengthy involvement with drugs (on average, about 4 years 2 months), and a high proportion (over half) of poly-abusers with opioids or abusers of opioids only or mainly. Group I, thus, approximates Group (f) of Table 3, a deprived subcultural group. Group II, consisting of 50 subjects, and characterised by a large proportion of females (46%), relative youth (the majority being under 19), higher occupational

(7) Distance between each subject is estimated in terms of the Euclidean metric according to which the difference between individuals i and j over a series of measures, denoted as d_{ij} , is defined as follows:—

$$d_{ij} = \sqrt{\sum_{k=1}^p (X_{ik} - X_{jk})^2} \quad \frac{1}{2}$$

(8) Type of abuse was coded as follows:

- Cannabis, L.S.D – 0
- Poly abuse without opioid – 1
- Poly abuse with opioid – 2
- Opioids only or mainly – 3

status than Group I, relatively high educational status (on average with some experience of secondary school), consumption in the main of non-opioid drugs, in particular cannabis or L.S.D., shorter period of involvement with drugs (on average less than 3 years) and a low incidence of overdosing (10%), approximates Group (d).

Group III, consisting of 40 subjects, was characterised by a high incidence of disrupted families (60%), a high level of non-drug related Court convictions (50%), and a high level of behavioural problems during childhood or youth (40%, as compared with an overall incidence of 12%). Group III would seem to arise from families suffering the loss of a parent during the subject's early years, with associated lack of cohesiveness among the remaining members and acting-out by the particular subject. It bears some resemblance to (e) of Table 3. Group IV, consisting of only 9 subjects, contained significantly high proportions of people with no fixed abode (100%) and psychiatric disorder (67%). It had the lowest average occupational status of all 5 groups. This was clearly an extremely deprived psychiatric group. Alcohol consumption was highest of all groups (56% drinking heavily) and most of its members were in the poly-abuse without opioids category. Group V, a tiny all male splinter group of only 4 subjects contained all the therapeutic addicts in the entire sample. Three of its four members were psychiatrically disturbed and all four were unemployed. It was the oldest and most drug dependent and opioid dependent of all groups. The latter two groups emerged at a very early stage in the analysis, representing clusters 5 and 12 of the 12 cluster solution. In contrast, Group II first appeared at the 7 cluster and Group I at the 6 cluster stage.

All the above groups reappeared in a second cluster analysis in which three variables, type of abuse, age and education, were given a double weighting to allow for their special classificatory significance. The five cluster solution in this analysis resembled that of the unweighted analysis.

The cluster analyses, therefore, tend to confirm in general the significance of the distinctions based on type of abuse for the subcultural groups of Table 3.

Conclusions

Of 45 comparisons in Tables 1, 2 and 3, 16 produced significant differences and 2 differences significant at the .10 level. It seems that as elsewhere there are important social background differences between opioid takers and non-takers in Dublin, opioid takers being generally more disadvantaged. However, among opioid takers those who confine themselves almost entirely to opioids are an older group with a higher incidence of therapeutic addiction and a lower incidence of familial inadequacy than the others. They represent no more than about 4% of the Centre's intake, the largest single group of which comprises other opioid takers who are poly-abusers and who constitute about 36% of intake. Among non-opioid takers the cannabis/L.S.D. users were distinguished by personal and social background from groups on minor tranquillisers and/or barbiturates. They would seem to constitute a subculture of hedonic experimentation associated with faulty family relationships. What these distinctions indicate is that the choice of drug represents a complex interaction of personal need, peer group circumstances and type of drug available. The theory of escalation of drug use from cannabis to narcotics has to grapple with that consideration. Cannabis was the most common first drug used in the first sample of Part I, but some did not progress beyond it, some took other drugs excluding opioids and some actually did progress to opioids. There were also those, about one-sixth of all opioid takers, who started on an opioid, those young women who developed a habit on minor tranquillisers, possibly with the cooperation of complacent G.P.S, and those older women who graduated from tranquillisers to barbiturates.

The abuse categories most at risk would seem to – be, firstly, barbiturate takers (about 2%), secondly, chronic opioid takers (about 4%), thirdly, poly- abusers who take opioids (about 36%)

and fourthly, the minor tranquilliser group (about 5%). The wide diversity of human need associated with those groups may be too much for a single clinic to handle. There is also the consideration that some of those in the cannabis/L.S.D. category may be influenced by other abusers towards the opioids. Some degree of specialization with a particular group would seem to be indicated. This recommendation would seem to be relevant for a number of drug dependency clinics involved in counselling or social work in addition to a maintenance programme. Their clients, like those of the Dublin clinic, are frequently indistinguishable from members of a delinquent subculture.

Summary

Significant differences were found between opioid takers and non-takers among referrals to Jervis Street Drug Advisory and Treatment Centre, Dublin, for the following variables: Sex, Age, Employment Status, Prior Court Appearance, Solitary drug taking, First drug taken abroad, Injection history, Physical complications associated with drug taking, and Maternal psychiatric status (for referrals aged under 21).

Further analysis indicated 6 types of abuse associated with particular personal and social circumstances: (1) Minor tranquillisers, (2) Barbiturates only or with minor tranquillisers, (3) Opioids only or mainly, (4) Cannabis and/or L.S.D. only, (5) Poly-abuse excluding opioids, and (6) Poly-abuse including opioids.

In broad social terms, these 6 groups may be seen as representing psychiatric or personal inadequacy—groups (1), (2) and (3), subcultural deviance—(5) and (6), and subcultural hedonism in the context of poor family relationships—(4). Groups most at risk were considered to be in the following order—(2), (3), (6),(1).

Finally, cluster analyses, using unweighted and weighted variables, were employed to test the significance of distinctions based on types (3), (4), (5) and (6). In general, similar groups were obtained.

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