

DRUG AND ALCOHOL DEPENDENCE : THE PAST DECADE AND FUTURE, VIEW FROM A DEVELOPMENT COUNTRY

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INTRODUCTION

Some Conceptual issues :

What constitutes "drug-abuse" remains an ongoing controversy because social, cultural, administrative, legal, political, metaphysical and philosophical issues have been unresolved.

The use of drugs such as opium, cannabis, coca, alcohol, or tobacco is an integral part of the daily life of certain communities. For instance 'Kat' may be used by the shepherd to help maintain his vigilance while at work and opium, or coca help the rural peasant to tolerate the privations of hard environment (Bull. W.H.O., 1981). In some festivals e.g. in India (like Holi in certain areas) young adults are socially expected to consume cannabis products. In certain parts of India opium is given to young children so that they sleep and mothers can go to work, as also a ceremonial drink (Report of Ministry of Health and Family, (1977). Opium is used by rural labour in Punjab, especially in the harvesting season, which involves a good deal of physical hard work (Mohan et al, 1977).

Important questions have been raised in the West referring to individuals rights, to use whatever drugs as long as this does not infringe upon the prerogatives of other (Szaz et al, 1974). These are even more pertinent in East where drug use is culture bound. It has

been suggested sociologically that much of the Western and North American concern about drug use had emanated from anxiety about and fear of the lower classes, which were then transferred on to the drugs they used. Thus, the fear of opium was associated with anxiety about the "Yellow Peril", i.e. the Chinese who emigrated to the United States in 19th Century. The fear of marijuana and heroin related to fear of blacks and lower classes. Traditionally such concerns about certain drugs have represented, therefore, a Xenophobia, or a fear of what was new and seemingly threatening (Musto, 1973).

The phenomenon of drug use, hence has to be perceived differently in different societies. Three substances as issues of concern, seem to have survived from ancient times to this day, viz. cannabis, alcohol and opiates. They still form the hardcore of the problem all over the world. Conceptually however we have been still thinking in terms of 'good' and 'bad' drugs (e.g. alcohol, opium) without taking into account the traditional beliefs and cultural norms of usage. Hence terms like "drug abuse" and "drug use" still reflect a value judgement in terms of drugs and communities that are under consideration. In one sense in relation to opium and cannabis they reflect the dichotomy between consuming and growing countries.

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Clinical Issues

A number of issues in the clinical area still remain unsolved. These relate to psychiatric and nosological aspects of drug dependence, longitudinal history of drug dependence syndrome and controversy surrounding adverse health consequences of cannabis use. Lastly the areas of treatment and its evaluation still presents many dilemmas which may have cultural overtones.

Numerous clinical reports from several countries have described heavy, chronic cannabis users who exhibit 'amotivational syndrome' though clinically controlled studies of chronic heavy use have failed to establish any definitive pharmacologically induced adverse effects, beyond those associated with chronic intoxication with a number of psychoactive substances, particularly sedative-hypnotics (Report ARF/WHO, 1981).

Another important but controversial question relates to Cannabis-related psychosis. Thacore and Shukla (1976) revived the concept of the cannabis psychosis which was unsupported by any other evidence.

The only consistently reported cannabis induced psychosis is an acute intoxication which is a short lasting condition from a few days to a few weeks related to a high degree of premorbid personality disturbance (Negrete, 1982).

TREATMENT ISSUES IN OPIATE AND ALCOHOL DEPENDENCE

Methadone & Heroin maintenance programme :

Methadone treatment has remained a controversial issue. Numerous studies dealing with short-term methadone detoxification have shown little lasting benefits with respect to altering the life-style of heroin addicts or allowing abstinence to be maintained over prolonged periods.

Controversy has also been raised regarding the duration of methadone detoxification. It has been estimated that less than half of the patients, who begin 3 weeks withdrawal programme, reach zero-dose levels. Of those who complete the programme less than half discontinue the use of opiates during the treatment, and for those who do the relapse rate is high 90-95% (Sorenson et al, 1982).

The initial reports however concerning treatment of addicts with methadone maintenance were quite impressive (Dole et al, 1968) while subsequent data by Gearing and Schweitzer (1974) about effectivity of methadone maintenance programmes contradicted them.

Methadone is a potent narcotic agent, and its diversion into illicit channels is well known. Illicit methadone consumption has been estimated to approximate 40 to 50% of all persons dependent on heroin in United States (Newmeyer et al, 1972; Chambers et al, 1972; Wepper et al, 1982).

Another problem associated with methadone maintenance programmes is the high rates of prevalence of alcoholism (12-25%) in persons on long term methadone therapy (Leibson et al, 1973; Simpson, 1973).

The problems of illicit diversion, occupational problems, lack of adequate health services outlets makes methadone detoxification or maintenance programmes impractical in the developing countries. Methadone maintenance, in essence, amounts to "substituting one addictive drug for another" or "life time dependency on a crutch" and is one of the major disappointments of the past decade.

Heroin Maintenance Programmes :

Hartnoll et al (1980) from their experience in U. K. where heroin is still available legally concluded that though

refusal of prescription encouraged abstinence, the social costs of increased criminality and illicit drug sub-culture was heavy.

Apart from this, the implications of maintenance of addicts of heroin included the prospects of a larger and steadily accumulating clinical population of chronic heroin addicts somewhat less criminally involved and perhaps less likely as individuals to create a large demand of illicit drugs but nevertheless not at all immune from criminal activities and illicit drug dealing (Hartnoll et al., 1980).

In a sense therefore both methadone and heroin maintenance programmes are more relevant as measures to reduce social costs of illicit drug use rather than a therapeutic advance. This should hence raise the question whether similar 'raw opium' maintenances programmes may also be practiced in areas of endemic use in developing countries rather than methadone. In essence this would also have similar defects as methadone heroin maintenance programmes, but may be much less expensive and easy to operate.

Alcohol : Questionable efficiency of Therapeutic Measures :

There are numerous problems in this area e.g. from definition of case, varying methods of treatment, study of clinic populations only, and varying periods of follow up. One of the most controversial areas has been the concept of controlled drinking with recovered alcoholics, which has not been accepted universally. There have been no major advancement in our knowledge about the natural history of alcohol consumption disorders. It is only lately that the focus in this area has shifted from "alcoholism" to alcohol related problems.

It has been demonstrated by Costello (1975; 1980) and Backland et al

(1975) that much of treatment success attributed to disulfiram, group therapy, aversion therapy and long term hospital stays can in fact be explained by differences in premorbid status. Indeed there is extensive literature reviewed by Edwards (1980), suggesting that recovery process in alcoholism may depend almost entirely on factors other than specific treatment interventions. The past decade has not shown any remarkable break-through in this area.

Self-help Groups : An advance :

Whatever little success in area of therapy, is in "self-help" groups and 'Therapeutic Communities' which attempt a complete life-style change with abstinence as a goal. Some of them like "Alcoholic Anonymous" expose a God-Centered theology whereas other expose a "Secular ideology". Whether secular or sacred, a form common to all of these organisations is an intensely held, highly cherished belief system. Interesting reports have come from developing countries like Thailand about similar group techniques based on Buddhist religion in the management of heroin dependence.

An important underlying factor in growing popularity of such self-help groups may be the phenomenon of substitute dependency. An individual's relationship to a community based on "self-help" group is intrinsically different from his relationship to clinic in the medical model. He belongs to the first, he only visits the latter. Important though the achievements in this area, it should also be observed that they have not been as successful in East and that the attrition rates in these groups are very high and making conclusions from the left over patients is the very reason for apparent success claimed by such organisations.

ACHIEVEMENTS AND FAILURES OF THE PAST DECADE

International Co-operation :

The major failure in the last decade is International Community's inability to come to grips with the problem of alcoholic beverages and its control, more so when increasing number of developing societies are becoming more alcoholised. A modest success in International Co-operation in drug abuse has been a departure from the strictly prohibitionistic approach in narcotics (which as a principle was not so successful with alcohol) in consuming areas, to a more integrated programme of crop substitution, integrated into the primary health care system with concomitant social development. A developing area of change in coming decade may occur in relation to cannabis, where appropriate development of technology (such as measures for BAL on road side for cannabis) may see it removed from the single convention and lead to increased acceptance of cannabis use. The third area of international co-operation relates to the psychotropic convention but its full impact has yet to be judged.

The reason behind the failures in drug abuse control field was overzealous implementation of the simplistic model of the economics of "supply and demand". In three separate areas of Asia a constant pattern repeated itself. First after centuries of opium use, the local governments, under pressure from international organisations passed or began to enforce anti-opium laws banning the production, transport, sale and local use of opium, following which a transition from opium use to heroin addiction began in these areas. Within a decade many of the former opium addicts switched to heroin and all the new addicts began to use heroin instead of opium. This pattern not only did occur in different locations,

but also at three different time periods from Hong-Kong during the later 1940's and 1950's, in Thailand during the 1960's and to Laos during 1970's. This suggests a causal relationship between anti-opium laws and heroin use (Westermeyer, 1976).

In contrast in case of India a policy of gradual systematic drug demand reduction using a stepwise withdrawal technique was implemented, through a series of legislative actions beginning from 1909. At a later stage, in 1955, the registration of opium addicts, with stricter controls on distribution, and availability on medical certificates. Price increase was another measure introduced. This decreased opium consumption from 500 tons in 1911 to 5 tons in 1961, in a period of 50 years without heroin etc. (Bayer 1981). In case of South-East Asian countries with similar background as India, the gradualism was replaced by sudden prohibition, which of course failed. In fact the similarity between South East Asian example of recreational use of opium and cannabis is similar to European and North American consumption of alcohol, as also the failure of prohibition as a method to control it.

Lessons learnt in the past decade and future trends :

One of the major lessons learnt during the last decade was that drug habits picked up in alien cultures under different circumstances do not become a part of individual life style, as shown by Vietnam veterans, as also others before them (Bill, 1977). Hence the simplicity of the concept of drug availability as a means of reducing consumption can only be naively matched by prohibiting use as a solution to personal and community life styles.

Etiology : The possible role of Endorphins :

With the discovery of endorphins the

endogenous psychoactive substances-whose distribution parallels that of opiate receptors, with highest concentrations in the hypothalamus, amygdala, and other limbic area of brain in areas involved with emotionality, their role in psychological homeostasis was hypothesized (Smith *et al*, 1976). It may be that drug dependence results from a deficit in functional endorphins. The addictive opiate tends to reinforce and prolong the action of endogenous endorphins, creating a state of decreased awareness and thus decreased responsiveness to stress (Clouet *et al*, 1977).

FUTURE AREAS OF RESEARCH

The technological advances in future are likely to be in two possible areas. The first area of further research is discovery of pharmacological method of treatment, including development of technology to estimate blood levels of THC on the model of BAL (blood alcohol level). With the discovery of endogenous opioids, it can be conceptualised that safe-addictive substance might be available in future. This safe-addictive-substance will have activity directed against the receptor sites. Ensuring the continued presence of such a substance at the receptor sites would maintain the adaptive state in a dependence-prone individual without generating any craving. Such a substance, unlike the endorphins would have a longer duration of action and ideally would not lead to tolerance. With such a substance, the expertise in the area might advance to a level whereby quantitative measurements would govern the dosage and frequency of administration to the addicts. Alternatively, it might be possible to manipulate the endorphin levels by drug-free therapeutic interventions like behaviour modification exercises.

Another possible field of studies would be the role of antagonists to the

commonly abused drug. The critical properties of such antagonist would be duration and reversibility in case of medical needs.

The second area of development might be a change in attitudes towards both alcohol and cannabis, both coming under better international co-operation and control. The lessons from South Asian countries may be appropriately integrated into International system.

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