

OPIUM ADDICTION IN ASSAM : A TREND ANALYSIS

J. MAHANTA, H.K. CHATURVEDI & R.K PHUKAN

ABSTRACT

A survey on opium use was carried out in Tinsukia district of upper Assam to assess the present prevalence and pattern of opium abuse and compared with earlier findings of the year 1981 (Baruah et al., 1995). A total of 75 addicts could be detected during the survey and 61 were interviewed using structured questionnaire. The results indicate significant decline in prevalence in opium use over the years in all the villages under high prevalence area. Out of 61 addicts, 51 addicts had started taking opium before 1980 and only 10 new addicts were added by 1990. The trend analysis of opium user's from 1979 to 1995 indicates a linear trend with high rate of decline in opium addicts statistical analyses, supports the hypothesis that linear declining trend is the best fit. By 1995, only four addicts were found having continued taking of opium

Key Words : Opium, addiction, trend analysis

Though evidence of opium intake dates back to prehistoric time, yet opium had been produced systematically and consumed in large scale since nineteenth century in the Asian countries; currently referred as the Golden Crescent and the Golden Triangle (Poshyachinda, 1993; Sarkar et al., 1993). North East States of India share long international border with Myanmar which is famous for production and nodal distribution of opium and its derivatives. Assam being the largest state of North East India by population (72%) and second in geographical area (31%), is finding difficult to control the drug trafficking across the border state. Opium use in Assam is closely associated with cultural practices and religious faith of people living in this region (Baruah et al., 1995; Charles et al., 1994). The people working in forest worship forest God before starting the work called 'Dangoria Puja' in local language. Opium is offered to God in some of the religious functions and the same is taken as "prasadam" (Gift) by the workers and participants. Opium is also traditionally used for treating illness like diarrhoea and alleviating

physical and mental stress in some communities (Suwanwela & Poshyachinda, 1986; Wairagkar, 1993). It is also used for recreational and social purposes.

Prevalence of opium use was varying widely from one village to another during 1976-1986 (Baruah et al., 1995). All the villages having prevalence around 50 per thousand and higher were categorized under high prevalence group of opium addiction. The present investigation is an attempt to assess the current situation and the trend of opium use in some of the selected villages having high prevalence in earlier study (Baruah et al., 1995).

MATERIAL AND METHOD

The study area for the present work was selected on the basis of the survey carried out by State Anti-Drug Prohibition Council, Assam, in Upper Assam during 1976-1986 and reported very high prevalence of opium use (50 or more per thousand). 18 villages were found with high prevalence. As it was not possible to carry out mass survey in the entire area due to operational reasons, the study was restricted

to four randomly selected villages of this region. They are Ubhota, Teji Gaon, Borachuk and Upper Ubon. The villages were located in and around Kakopathar PHC of Tinsukia district of Assam and were located close to the inter state boundary with Arunachal Pradesh. Total population of these villages was 3451 as on 1995.

House - to - house survey was carried out in all the selected villages. The head of each household or senior person was contacted and explained about the purpose of visit. The household or any family member who had ever used opium or currently taking opium was taken into confidence to provide correct information. Identity of link person or addicts was kept secret. The list of opium users was also rechecked with the village head and other village people for correctness. The questionnaire was filled by interviewing directly, because most of the respondents were unable to read and write. The questions included general characteristics, demography, age of start and duration of intake, frequency of use, mode of consumption, introducer and reason for taking/leaving opium.

The prevalence of opium use was compared with earlier reported prevalence by using z-test. The population distribution and percentage of opium users were calculated for different age groups. The age of start and leaving, along with duration of opium intake were used for calculation of general trend.

RESULTS

The survey was completed in three months, a total of 75 opium users could be recorded in four villages. Out of 75 opium addicts 61 were contacted and interviewed by using predesigned questionnaire. The rest of 14 addicts could not be interviewed after repeated visits. Particularly in one village, 12 opium users could not be contacted because of their shifting to other place due to flood and did not return back during the survey. The prevalence of opium addicts in the respective

villages are presented in Table-1. One tail test (z-test) indicates that the prevalence is significantly lower in 1995 in comparison with 1981 (mid year survey) in all the four villages. Out of 61 opium addicts, 57 had already stopped taking opium. Only one female opium addict could be detected, but she had already stopped taking opium by 1995.

TABLE 1
COMPARISON OF PREVALENCE OF OPIUM ADDICTS IN THE YEAR 1995 WITH 1981 OF FOUR VILLAGES

Name of village	Population in the year 1995	Prevalence of opium use (per thousand)	
		1981 year #	1995 year
Ubhota	652	48	12*
Teji Gaon	802	60	22*
Borachuk	1095	109	21*
Upper Ubon	902	95	29*

Mid year of survey (1976-86)

*p < 0.01 (z- test)

The distribution of addicts by age shows that number of addicts in lower age group i.e. below 20 years and 20 to 29 years were zero and one respectively. However in the age group 50-59 and 60 years & above, the number of addicts were 19 and 22 respectively (Table-2).

TABLE 2
AGE WISE DISTRIBUTION OF POPULATION AND OPIUM ADDICTS

Age in years	Population	Addicts	
		N	%
Below 20	1758	0	0
20 - 29	622	1	0.2
30 - 39	434	7	1.6
40 - 49	290	12	4.1
50 - 59	197	19	9.6
60 & above	150	22	14.7
Total	3451	61	1.8

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The percentage of opium addicts by age, calculated from the population of respective age group in the study region, was found increasing upward from 0 to 14.7% continuously from lower to higher age.

Analysis of age at start and age of leaving opium indicates the declining pattern from 1979 to 1995 (Table-3). Opium addicts, who died during last 15 year were not included in the analysis due to lack of their records. The number of addicts in 1979 was 51 which increased to 61 by 1991. After 1991, the number of addicts (ever used opium) remained unchanged as no new member started taking opium in this region. However, it appears from table-3, that opium addicts started leaving this habit gradually. Out of 61 opium addicts, 45 addicts stopped taking opium during 1985-1991. At last in 1995, we found only four addicts continued taking opium. Not a single case was found to have restarted taking opium after stopping: The over all declining trend of opium user's was found to be linear with negative slope. (-3.583) and coefficient of determination R^2 (0.929). The calculated value of X^2 (6.537 at 8 d.f.) for goddness of fit test was found nonsignificant. The results of X^2 test and R^2 value indicate that the linear trend is the best fit (fig). The magnitude of actual and estimated number of opium user's was noticed little higher at some initial point of time i.e. in

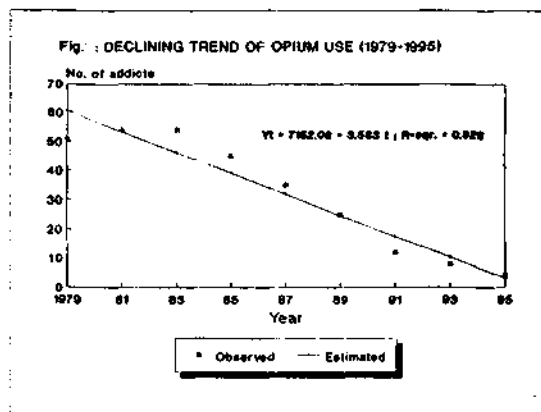
1979, 1983 & 1985. It may be due to the sampling error, because it was not possible to include the unresponsive and dead cases for analysis.

TABLE 3
DECLINING LINEAR TREND OF OPIUM USE FROM 1979 TO 1995

Year (t)	No. of addicts (ever used)	New addicts added	No. of opium addicts		Linear Est. of Y_t
			stopped opium	continued opium (Y_t)	
1979	51	1	1	51	60.7
1981	52	4	1	54	53.4
1983	56	2	2	54	146.3
1985	58	2	11	45	39.2
1987	60	-	10	35	32.0
1989	60	1	11	25	24.8
1991	61	-	13	12	17.7
1993	61	-	4	8	10.5
1995	61	-	4	4	3.3

DISCUSSION

Various factors can be attributed to high prevalence of opium use in this part of country. They are traditional belief in using opium for holy purpose, treating illness, alleviating physical capacity and to reduce mental stress while staying away from home to work in forest or other place. Moreover cross country trading, easy access and local cultivation are some of the additional reasons (Sarkar et al., 1993). In the present investigation, it appears that prevalence of opium use decreased significantly in all the four villages. This change may be due to social reforms which took place during the course of time. According to the opinion of opium addicts who stopped taking opium, the reason of leaving opium was the realization of family responsibility, poor economic condition, increase in price and a social stigma. The price of opium has increased almost 10 times in last 10 years which may be a valid reason. As most of the addicts belong to poor socioeconomic class of society, they are finding it difficult to procure. Efforts of health authorities, administrators and social workers might have played a major role to restrict the opium use.



The distribution of opium addicts by age clearly indicates that opium use in young age group is very low in comparison with higher age or old age. Whereas, most of the old age opium addicts started taking opium at young age and continued taking it for a long period and then stopped. This chain is very common because people at younger age get attracted towards drug if they come in contact with a drug user friend. The changing pattern may be due to awareness in young generation and efforts of parents to keep their children away from drugs.

The opium use has been found gradually declining from 1985 onwards. The linear trend of decline is also proved by statistical tests, but it may not be possible to generalize our findings for the entire state because of certain limitations in this study. However, the information generated in this study has brought out many hidden facts and reveals a undergoing process of change in the society towards opium use. The start of declining trend can also be corroborated with country wide mass campaign organised against drug abuse. This is a silver lining in the context of North Eastern region of India.

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