Substance use and health status of men in rural Tamil Nadu

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Introduction

Alcoholism and use of other substances among men is a serious public health problem affecting both poor and rich. Though prevalence of substance use in India may be low as compared to industrialised countries, its effect on health of individuals and on social well-being is of great concern. Substance use in poorer households affects its members in many ways, through its impact on household income, physical and mental health not only of the substance-user but of all members of the household, and on violence against women and children.

Alcohol and tobacco related death and disability has been a major concern for health planners and researchers in recent decades. The use of alcohol and psychoactive drugs causes at least 1, 23,000 deaths globally every year. While on the one hand the recorded alcohol consumption among adults has fallen steadily in most developed countries since 1980, on the other it has risen steadily in the developing countries and countries of former Soviet Union.

In India illicit liquor consumption is estimated to cause about 800 deaths and 3000 disabilities annually and 50 percent of road accidents. Annually, tobacco related conditions are reported to cause 6, 35,000 deaths in India. Almost one half of all cancers in men are believed to be the outcome of tobacco consumption in form or other. In India, it is estimated that over 142 million men and 37 million women above 15 years of age are regular tobacco users. Recognising the major health problems associated with substance use, World Health Organization and World Bank considers the global health impact of alcohol and tobacco on par with unsafe sex.

Though a number of studies have been carried out in India and abroad, substantiating the relationship between substance use and health risks of urban population, especially among students, youth, truck drivers and urban migrant labourers, there is hardly any about its impact on rural population.

It is against this backdrop that RUWSEC- a grassroots women's organization in Tamil Nadu, India, with its focus on Women's health and well being through women's empowerment—attempted to carry out the present study. The study also is grounded in RUWSEC's ongoing engagement with changing attitudes and behaviour related to the use of tobacco and alcohol from the perspective of its relationship with the social construction of masculinity. The study, with its focus on rural poor community will fill an important gap in the knowledge base on the nature and extent of the problem.

Review of Literature

Prevalence of alcohol/ tobacco use

The prevalence of alcohol and tobacco use among men in India varies between states. In a study in Kerala 7604 male respondents reported that only 44.2 percent were non-users of alcohol; 30.4 percent consumed alcohol regularly and 25.4 percent occasionally. Similarly, another study in Rajasthan carried out in a rural community revealed that the prevalence of alcohol use was 24.7 percent. Another study among university students in India reported that 18.7 percent of males were current users of tobacco products. One more study among college students found that the prevalence of tobacco use was 10.8 percent. According to data base of NFHS-2 (1998-99) among men aged 15 years and above in Tamil Nadu, 21 percent drink alcohol, 27 percent smoke and another 13 percent chew panmasala or tobacco.

Differentials in substance use

Examining differentials in substance use by socio economic characteristics of population, a study carried out in Rajasthan found that alcohol use was found to be significantly associated with marital status, age, family structure, and educational and occupational status. Similarly Colleges with residences/hostels showed a higher percentage of smokers than non-hostel institutions. Smoking was associated with a family history of tobacco use and having friends who smoked and used alcohol.

In Tamil Nadu (1998-99) the proportion of men who drink or smoke or chew pan masala rises with age. The rate is significantly higher in rural areas than in urban areas. The survey also reported that the alcohol consumption or smoking habit is higher among illiterate and low-income group.

Associated risks

Substance use particularly alcohol use is related to high rate of unsafe sexual behaviour. In a study among men taking treatment for alcohol dependence in a de addiction centre in south India, it was found that high-risk sexual behaviour was associated with heavier drinking. Studies on injecting drug users in Madras (Chennai) have shown a significant association of daily use of alcohol with indulgence in risky sex with commercial sex workers. In addition, NACO has also reported an association between risky sex and alcohol use[10].

Health Consequences

Numerous studies have emphasized the serious health effects of long-term heavy drinking, from an increased risk for having accidents to developing liver cancer. A study by a Japanese cancer centre of 58,000 men and women has found that men who drink alcohol regularly are twice as likely to develop colon cancer than men who do not drink at all. Similarly the prevalence of *leukoplak*ia was higher among alcohol and tobacco users than non users. In India, 48 percent cancers affecting male cancers and 20 percent affecting female are tobacco-related. Similarly another study done in Chennai indicated that thirty percent of deaths among elderly men and about 10% percent of the deaths among female in old age can be attributed to smoking in India.

In Tamil Nadu 1.5 percent of population was reported to be suffering from asthma and the prevalence of tuberculosis (TB) is 479 per 100,000. The TB prevalence rate is more than twice as high for males (660 per 100000) as for females 301 per 100000 (NFHS-2). Smoking is more widely prevalent among men than women. This may explain the reason for high prevalence of TB among men as relative to women.

Objectives and Methodology

The main objectives of the study were to

- Estimate the prevalence of alcohol and other substance use and to study the socio-economic and demographic correlates.

- Look into the nature and pattern of substance use and to assess the specific characteristics of those willing to stop this habit.

- Study the linkage between substance use and health status of men.

Methodology

Data were collected from all men aged twelve and above in 63 hamlets in Kancheepuram district, Tamil Nadu where RUWSEC works with men to sensitise them about Reproductive health and Gender issues under one of its programmes. Members involved in this programme carried out the survey during November-December 1999. A semi-structured questionnaire also was used to collect information from the households.

Information on substance-use, its nature and extent were based on self-reports by respondents. The data therefore may under-report the prevalence. However, it is a useful starting point to plan interventions since it gives some idea of the extent of the problem.

Definition of terms used

Substance users:

The term *substance users* used in the study refers to persons who had the habit of using one or more of the following substances at the time of the study: Alcohol, Toddy, Cigarette, Beedi, *Panparag*, and Betel leaves with tobacco chewing, Snuff and Ganja.

Occasional users, regular users and Addicts

For the purpose of the study, different categories of substance users were defined on the basis of frequency of the substance use. Those whose use of substance were confined to once in a month or twice or thrice in a year or even less frequently were defined as *occasional users*; while those who were using the substances twice or thrice in a week or every day put in the category of *regular users*. Persons who were using the substances more than once a day and unable to remain without its use even for a single day were termed as *addicts*.

The Study Area and Population

As per 2001 census of India, Tamil Nadu is the sixth largest state in India in terms of population (62.1 million). The literacy rate of population aged seven and above was 73 percent in 2001 and the male & female literacy rates were 82 percent and 65 percent respectively. According to the Annual report 2001 – 2002 of the Ministry of Social Justice and Empowerment, Government of India, in 2001 the state had the third highest number of addicts registered in India.

The study covered 63 hamlets in Thirupporur and Thirukazhukundram blocks of Kancheepuram district. The population in these hamlets are socially and economically marginalized. According to RUWSEC'S Data Base (based on baseline and follow up Health survey in 1996-97 and later respectively), there were 5423 households, covering a population of 23,883 persons, with 12,016 males and 11,867 females in the year 1999. 90 percent of the population in the hamlets belonged to scheduled caste and the other ten percent from other

backward castes. There was a big gender gap in the literacy ratio. The literacy rate of population aged seven and above was 59 and 40 percent for males and females respectively.

The data on substance use among men was collected during November – December 1999.

Findings from the study

The following major heads present the findings of the study:

1) Substance use in men and characteristics of the Users

2) Substance use and its impact on the Health Status

Characteristics of the Study population

There were 9871 men aged 12 and above years in the study area of 63 hamlets. Higher proportion of the population under study was very young; about half of them (48 percent) were below 30 years, followed by one fifth in the 30-39 years and only seventeen percent were aged 50 or above. The mean age of the population was 34 years.

Overwhelming 97.6 percent men in the sample area were Hindus, two percent were Christians and the remaining (sixteen) were Muslims. A large majority of men in the study belonged to socially and economically marginalised caste (Scheduled caste) and the remaining to the other caste group. The literacy rate of the male population covered by the study was more or less equal to the district rate of 59 percent (census 2001).

Nearly 63 percent of men aged 15 and above were married with eighty two percent engaged in economic activities. Only one out of four men belonged to households that possess their own land while others work as wage labourers; about 70 percent men were agriculture labourers.

Substance use among men and their characteristics

The following section describes the prevalence and patterns of substance use and its differentials by social economic conditions. It also reflects how many of those surveyed were willing to stop the habit.

Prevalence of substance use

Table 1 shows that out of 9871 males in the study area, the prevalence rate was about 16.45 percent (15.09 percent were current alcohol users, 6.32 percent smokers and 3.86 percent *panparag* users (tobacco based chewing substance). About three fifths (58 percent) of substance users were using multiple substances. On average, substance users were using two substances (1.69). Usually use of liquor co-exists with use of other substances, i.e. most of the alcohol users had multiple habits.

Table 1. Prevalence and type of Substance use in Men

Type of Substance	Users	%	Prevalence Rate Population aged 12+
Alcohol	1490	54.16	15. 09
Cigarette/ Beedi	624	22.68	6.32
Panparag	381	13.85	3.86
Others	256	9.31	2.59
Total	2751**	100.00	16. 45

Nature of the substance use

Alcohol was the single most commonly used substance with 54 percent of users, followed by 23 percent who smoked cigarettes and beedis. Although panparag has been available only in recent times, it was used by 14 percent of those interviewed. Only nine percent chewed pan [betel leaves] with tobacco, used snuff and Ganja. (Of this 9 percent chewed tobacco with betel leaves).

Frequency of use

A little more than three fourth of substance users were regular users and of them five percent were addicts. Only about one fourth (24 percent) of the substance users were occasional users.

Table 2 provides information about substance users by type and frequency of use. While looking at the type of substance by the frequency of use, it was found that three-fourths of other substance users (pan and tobacco chewing, snuff and ganja users) and majority (63 percent) of smokers were daily users. However, a considerable proportion among liquor and *panparag* users fell under the category of occasional users (30 and 27 percent respectively).

Table 2. Substance users by type and frequency of use

Type Of Substance	Frequency of Use					
	1	2	3	4	5	Total
Alcohol	243	207	493	491	56	1490
	16.31	*13.89*	*33.09*	*32.95*	*3.76*	*54.16*
Cigarette/ Beedi	59	27	143	341	54	624
	9.46	*4.33*	*22.92*	*54.65*	*8.65*	*22.68*
Panparag	58	43	110	163	7	381

	15.22	*11.29*	*28.87*	*42.78*	*1.84*	*13.85*
Others	16	4	39	171	26	256
	6.25	*1.56*	*15.23*	*66.80*	*10.16*	*9.31*
Total	376	281	785	1166	143	2751
	13.67	*10.21*	*28.54*	*42.38*	*5.20*	*100.00*

USED CODES:
1. Using 2-3 times a year.
2. Using once in a month.
3. Using weekly one or two times
4. Using daily
5. Using two or more times a day (Unable to be without these substances)

Age distribution of substance users

The age of substance users ranged between 12-70 years, with nearly one third of substance users between 30-39 years, followed by twenty four percent in 20-29 years age group and two percent were adolescents. Age desegregated data by type of substance use indicated that panparag users were younger and other substance users were comparatively older. In other words the average age of the panparg users was seven years less than the alcohol and other substance users.

Age at starting substance use

In general, adolescents began by experimenting with cigarette/ beedi smoking followed by panparag and alcohol consumption and progressed to other substances. It is clearly seen from the study that higher proportion of users had developed the habits in the age ranging from 20-23 years. The mean age at which a person started drinking, smoking and panparag ranged between 20 –23 years. In this age group, men have earning capacity, they also remain in a state of wavering mind and are vulnerable to peer pressures. Combined together, these factors contribute to their increasing susceptibility to substance use and addiction. Nearly 60 percent of the users started the habit when they were below 23 years. The study has shown that the other habits like 'chewing betel leaves pan; tobacco chewing and snuff developed at a later age.

Age as a determinant of substance use

Age is an important determinant of the nature and frequency of use. Generally, a person goes through two or three stages to become an addict: occasional use leading to regular use and culminating to addiction. It is also clearly seen from the study that men started using substances occasionally at young age and subsequently became addicted in their middle years. In this study area higher proportion were occasional and regular users (24 and 29 percent respectively). The mean age of occasional users was 35 years and 43 years for addicts. It is very clear that addiction is like an elevator wherein frequency of use increases with age; the mean age of users increased with frequency of use (Table 3).

Table 3. Prevalence of substance abuse among men aged 12 and above cross-classified with selected variables

1.Age						
Age group	Using one or more substances	%	Not users	%	Total Males	Chi-square
12 - 19	26	1.14	2263	98.86	2289	839.12
20 - 29	335	14.01	2057	85.99	2392	"a"
30 - 39	519	27.14	1393	72.86	1912	
40 - 49	457	30.86	1024	69.14	1481	
50 - 59	204	22.37	708	77.63	912	
60+	83	9.38	802	90.62	885	
2.Religion						5.78
Hindu	1597	16.57	8041	83.43	9638	"b"
Christian	27	12.44	190	87.56	217	
Muslim	0	0.00	16	100.00	16	
3.Caste						23.84
SC	1506	17.08	7310	82.92	8816	"a"
BC	118	11.18	937	88.82	1055	
4.Marital status						911.95
Married	1461	26.39	4076	73.61	5537	"a"
Un married	143	3.46	3989	96.54	4132	
Widower/Divorced	20	9.90	182	90.10	202	
5.Literacy						233.13
Literate	665	11.61	5064	88.39	5729	"a"
Illiterate	959	23.15	3183	76.85	4142	
6.Occupation						508.87
Working	1573	21.37	5789	78.63	7362	"a"
Not working	51	2.03	2458	97.97	2509	
7.Landowing status						1.83
Land owing	395	15.59	2138	84.41	2533	N.Sig
Landless	1229	16.75	6109	83.25	7338	
8. Family size						25.86
1	2	7.41	25	92.59	27	"a"
2 – 3	325	18.01	1480	81.99	1805	
4 – 5	729	17.26	3495	82.74	4224	
6 – 7	507	15.80	2701	84.20	3208	
8 +	61	10.05	546	89.95	607	
Total	1624	16.45	8247	83.55	9871	

Note: Sig "a" - Significant at 0.01 level. Sig "b" - Significant at 0.05 level; N.Sig - Not Significant.

Social and economic determinants of substance use

Table 4 shows the prevalence of substance use among men by socio economic and demographic (SED) characteristics. The study points to a significant relationship between religion, caste, marital status, literacy, and working status with the prevalence rates.

Table 4: Sub Stance Users Cross Classified With Background Variables

VARIABLES		FREQUENCY OF USE						Chi - Square
		1	2	3	4	5	TOTAL	
AGE GROUP	12-19	6	18	10	14	1	49	62.015 Sig
		12.24	36.73	20.41	28.57	2.04	1.78	
	20 - 30	111	82	209	244	17	663	
		16.74	12.37	31.52	36.8	2.56	24.1	
	30 - 40	123	94	260	367	39	883	
		13.93	10.65	29.45	41.56	4.42	32.1	
	40 - 50	73	56	193	365	41	728	
		10.03	7.69	26.51	50.14	5.63	26.46	
	50 - 60	40	20	69	111	24	264	
		15.15	7.58	26.14	42.05	9.09	9.6	
	>=60	23	11	44	65	21	164	
		14.02	6.71	26.83	39.63	12.8	5.96	
RELIGION	HINDU	371	278	766	1149	142	2706	1.061297 Not. Sig
		13.71	10.27	28.31	42.46	5.25	98.36	
	CHRISTIAN	5	3	19	17	1	45	
		11.11	6.67	42.22	37.78	2.22	1.64	
CASTE	SC	348	262	720	1102	132	2564	4.711434 Not. Sig
		13.57	10.22	28.08	42.98	5.15	93.2	
	BC	28	19	65	64	11	187	
		14.97	10.16	34.76	34.22	5.88	6.8	
LITERACY	ILLITERATE	206	133	453	724	99	1615	26.7406 Sig
		12.76	8.24	28.05	44.83	6.13	58.71	
	LITERATE	170	148	332	442	44	1136	
		14.96	13.03	29.23	38.91	3.87	41.29	
OCC STATUS	WORKING	363	271	758	1130	139	2661	0.078035 Not. Sig
		13.64	10.18	28.49	42.47	5.22	96.73	
	NOT WORKIN	13	10	27	36	4	90	
		14.44	11.11	30	40	4.44	3.27	
LAND OWNING STATUS	LAND OWNED	123	74	202	235	33	667	13.44711 Sig
		18.44	11.09	30.28	35.23	4.95	24.25	
	LAND LESS	253	207	583	931	110	2084	
		12.14	9.93	27.98	44.67	5.28	75.75	
TOTAL		376	281	785	1166	143	2751	
		13.67	10.21	28.54	42.38	5.2	100	

Note: Sig – Significant @ 0.05 level; Not.Sig: Not Significant

The rate was higher among Hindus than Christians and it was six percent higher among dalits than in other castes. The association between caste and substance use was statistically highly significant. This suggests people belonging to socially and economically marginalised caste are more likely to use the substances.

There seems to be a highly significant association between prevalence of substance use and marital status. The prevalence was 26 percent among those married and 10 and 3 percent among widowers and unmarried respectively. This difference could be due to the influence of age factor.

Education is an important determinant of substance use. The rate was 12 points higher among illiterates than literates. This may be because educated men have more access to information and hence better awareness about the side effects of using substances. Alcohol, smoking and other substance usage were significantly higher among illiterate men. However, panparag usage was noticeably higher among educated persons (57 percent of panparag users were literates).

Similarly the prevalence was 10 times higher in working people as compared to non working men. The association between two was proved statistically significant. This difference could be due to two factors: age and availability of cash in hand. This was also corroborated by the fact that no significant difference was observed by among men with land holdings of different sizes.

Determinants of frequency of substance use:

It emerged from the study that the economics and easy availability of the type of substance men used was one of the important determinants of frequency of use. Among alcohol and *panparag* users, noticeable proportion (thirty percent) was occasional users but majority (86.91 percent) among those who smoked and used other substances, used them regularly. It is obvious that these two substances were relatively cheaper and readily available in petty shops in villages. Equally important is the fact that alcohol and *panparag* were jointly used. The association between the price and availability of the substances and frequency of their use is statistically highly significant.

The data indicates that the proportion of regular users and addicts, though not statistically significant, was relatively higher among dalit men. Similarly religion did not seem to have any association with frequency of use. Among other social factors, education was found to have a significant relation with frequency patterns. While about thirty percent of literates used the substance occasionally, among illiterates, a large majority of eighty percent were found to be regular users and addicts. Similarly, the study points correlation between the landowning status and frequency of use. For instance, in comparison with about one third of the occasional substance users in landowning households, four fifth among landless households were regular users. Importantly, agricultural daily wage labourers used the substances more frequently than the others. As explained above, one's place in Caste and class hierarchy coupled with one's education and occupational status found to be intersecting with the frequency of the substance use. In addition, age was positively correlated with frequency of substance use-- among users below 20 years about half were occasional users, while of substance users aged over 40 years,

only four out of five were regular users. The data makes it clear that men started using the substances occasionally at their young age and become regular users and addicts in the middle ages.

Attitude towards Substance use

As part of RUWSEC's reproductive health programme, periodic workshops are held in the villages about the issues and problems of substance use. To gauge the impact of such workshops a lead question as to whether the respondent will like to stop the habit was included in the study.

1438 men out of 2751 substance users (52.27%) stated "Yes" when asked whether they would like to stop the habit of substance use. As is visible from the table 5 the willingness to stop the habit varied in accordance with the social and economic conditions of men. The main differences observed were as follows:

Table 5. Substance users' willingness to stop the habit cross classified with selected variables

Variables	Willing to stop	%	Not willing to stop	%	Total Males	Chi-square
Religion						
Hindu	1419	*52.44*	1287	*47.56*	2706	*1.85*
Christian	19	*42.22*	26	*57.78*	45	*Not Sig*
Caste						
SC	1340	*52.26*	1224	*47.74*	2564	*0.0015*
BC	98	*52.41*	89	*47.59*	187	*Not Sig*
Marital status						
Married	1228	*49.74*	*1241*	*50.26*	2469	*81.35*
Un married	197	*79.12*	52	*20.88*	249	*"a"*
Widower/Divorced	13	*39.39*	20	*60.61*	33	
Literacy						
Literate	616	*54.23*	520	*45.77*	1136	*2.96*
Illiterate	822	*50.9*	793	*49.1*	1615	*"c"*
Occupation						
Working	1378	*51.79*	1283	*48.21*	2661	*7.73*
Not working	60	*66.67*	30	*33.33*	90	*"a"*
Landowing status						
Land owned	372	*55.77*	295	*44.23*	*667*	*4.32*
Landless	1066	*51.15*	*1018*	*48.85*	2084	*"b"*
Type of substance						
Alcohol	841	*56.44*	649	*43.56*	1490	*126.86*
Cigarette/Beedi	262	*41.99*	362	*58.01*	624	*"a"*
Panparag	259	*67.98*	122	*32.02*	381	
Others	76	*29.69*	180	*70.31*	256	
Frequency of use						
Occasional users	452	*68.80*	205	*31.20*	657	*94.48*

|						
Regular users	986	*47.09*	1108	*52.91*	2094	*"a"*
Total	**1438**	*52.27*	**1313**	*47.73*	**2751**	

Note: **"a"** - Significant at 0.01 level of significant.   **"b"** - Significant at 0.05 level. **"c"** - Significant at 0.10 level. **Not Sig** - Not Significant.

An analysis of the responses by type of substance, it was found that majority of *panparag* users and 56 percent of liquor users showed willingness to stop using them. A higher proportion (58 and 70 percent respectively) of them were not interested to stop the habit. This may be because of the prevalent perception among the population that that smoking and pan chewing are not bad habits.

An inverse relationship was observed between the frequency of use and willingness to stop the habit. When the frequency of use increased the willingness to stop the habit decreased, i.e., majority of occasional users was ready to stop it while 47 percent of regular users were resistant to behaviour change in relation to the substance use.

Graph 1 shows a highly significant negative correlation between increase in age and interest to stop substance use. The likely reason for this pattern may lie in the degree of addiction as among young male population there were more occasional users as compared to majority of addicts among the older age group. Similarly, Unmarried, unemployed and land holders showed higher inclination towards giving up the substance use.

Graph 1

Percentage of substance users ready to stop
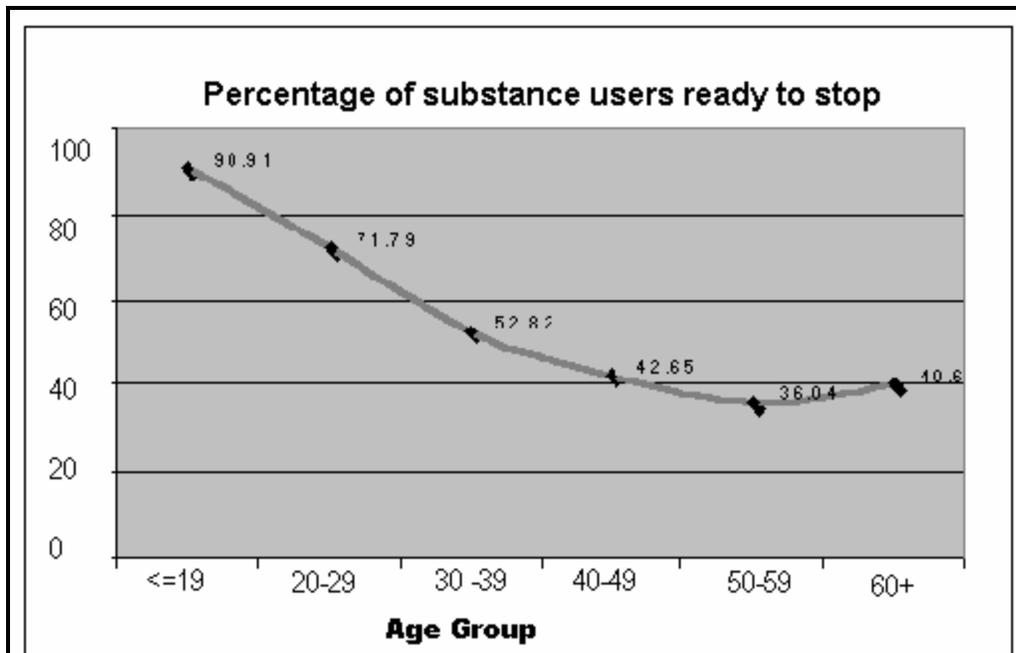
Attitude towards stopping substance use did not vary much by religion and caste. Proportion willing to stop the habit was slightly higher in literates as educated men were aware of the consequences of using substances. The association between the willingness with age, marital status, literacy, occupation and land owning status, type of substance and frequency of use were statistically significant. Overall unmarried, educated young men were more willing to stop substance use.

More than half of the substance users were ready to give up the habit. Intervention strategies thus could be focused towards this target group   to have encouraging results to effectively wean them off substance use.

Substance Use and Health Status

The following section analyses the linkages between substance use and health status of men. It is seen from the table 6 that there is a close association between substance use and morbidity. The prevalence of general morbidly is more than 8 times greater among substance users as compared to non-users. Here, the general morbidity refers to self reported health problem on the day of survey; 41 percent of substance users had one or more illness on the day of survey whereas among non-users the prevalence rate was as low as 5 percent.

Table 6. Substance Users Cross Classified With General Health Status Aged 12 And Above

Substance	General Morbidity		Reproductive Morbidity		Total
	Had One Or More Problem	Had No Problem	Had One Or More Problem	Had No Problem	
Users	665	959	42	1582	1624
	40.95	*59.05*	*2.59*	*97.41*	*16.45*
Not Users	523	7724	73	8174	8247
	6.34	*93.66*	*0.89*	*99.11*	*83.55*
Total	1188	8683	115	9756	9871
	12.04	*87.96*	*1.17*	*98.83*	*100.00*

The study also revealed that joint aches and pains were very common among the substance users, particularly among the users of alcohol. Generally, men start drinking occasionally as 'pain killer' and become addicts. This in turn leads to nervous disorders with severe aches and pains. Similarly respiratory infections were slightly higher among substance users than non-users.

The proportion of men suffering from reproductive morbidity is three times greater among substance users as compared to non - users. It implies that skin itches and patches in the private parts were high in the substance users group. The possible reasons could be high intake of alcohol with raised level of blood sugar   leading to skin diseases and itching in the genital areas: one of the symptoms of diabetes. Secondly, the substance users are less careful about their

personal hygiene. The lack of personal hygiene itself could lead to skin diseases. However, no tangible relation was seen between the frequency of substance usage and morbidity.

Conclusions and way forward

The prevalence of substance usage among men is very high. Nearly one sixth of the men in the study area reported that they had habit of using one or more substances. Importantly, three out of four substance users in the area were either regular users or addicts. Men started using these substances occasionally in their adolescence and graduated to becoming regular users and finally became addicted to the substances. The frequency of usage increased with age. The study underlined the linkages between availability of cash in hand and beginning/ strengthening the habit of substance use. As majority had started using substances in their late adolescence and early twenties age and majority of occasional and regular users showed a high level of willingness to stop these unhealthy practices, any intervention through public health education should be strategically directed to this age group to yield effective results in the arena of public health.

What is needed at this juncture is intervention in the form of support services for de-addiction for those who want to stop. This coupled with awareness about health and other consequences of alcohol and use of other substances may contribute to reduce the socio-economic consequences at all levels, individual, domestic, and community, arising out of substance use.

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