



ISSN (E): 2277- 7695
ISSN (P): 2349-8242
NAAS Rating: 5.03
TPI 2019; 8(4): 1011-1017
© 2019 TPI
www.thepharmajournal.com
Received: 08-02-2019
Accepted: 09-03-2019

K Rajeswari

Senior Research Fellow, AICRP-
Home Science-FN component,
PJTS AU, Telanagana, India

T Kamalaja

Senior Scientist, AICRP- Home
Science-FN component,
PJTS AU, Telanagana, India

K Uma Maheswari

Professor and University Head,
PGRC, PJTS AU, Telanagana,
India

Pattern of smoking, tobacco use and alcoholism in tribal population

K Rajeswari, T Kamalaja and K Uma Maheswari

Abstract

Worldwide and Indian surveys shows a greater prevalence of drugs use among the less educated, illiterate and rural population. Objective of the study was to assess the pattern of drug addiction in tribal population of Telangana state. The sample population was selected by systematic random sampling of households and drug users in the families were interviewed personally using a pre-structured and pretested schedule. The results revealed that drinking cum smoking is the major (53%) addicts observed in the drug addict population of both genders. The drug addictions were more prevalent in male (85.3%) population compared to female (14.7%) population. Daily use of drugs was found in the majority of the male population whereas rarely use was found in female population. The start age of drugs use was 20-24 years followed by 15 to 19 years in majority of the study population. The long term use of smoking, tobacco and alcohol was found for more than 20-24 years in majority of the population. The major type of drug use found was Pan supari, and pan with tobacco in tobacco chewers, chutta, beedi, and cigarette in smokers and local liquor and beer in alcoholics of tribal population of Telangana State.

Keywords: Drug use, smoking, alcoholism, tobacco use, tribal population, telangana state

Introduction

Drug addiction is the biggest pain the society has come across. It is confined not to any one country or region alone but widely afflicted the globe. Today, no part of the world is free from the pain of drug addiction. Recorded history indicates that drugs were used not just for presumed therapeutic effects and for recreational purposes to enhance pleasure and relieve stress. The fast changing social milieus, social sanctions and other factors are mainly contributing to proliferation of the drug's use and has posed a serious challenge to individuals, families, societies and Nations (Ramakrishna G.S *et al.*)^[1]. India is more complex than any other country in the world because of the diverse patterns of tobacco consumption: smoking, chewing, applying, sucking, gargling, etc. and for a large consequential burden of drug related diseases and deaths. (Diraa O *et al.*, 2004)^[2]. GATS India revealed that more than one-third (35%) of adults in India use tobacco in some form or the other (MHFW, 2010)^[3]. In India, easy availability of variant smoking and smokeless tobacco products is well established and these include pan masala, snuff, gutka, cigar, hukka, and cigarettes / beedi. Indian Council of Medical Research reported that tobacco-related disease groups include cancers, coronary heart disease and chronic obstructive lung diseases. The World Health Organization predicts that tobacco deaths in India may exceed 1.5 million annually by 2020. Thus, with its 250 million tobacco consumers, India is sitting on the verge of an unparalleled health crisis. (Chaudhary K., *et al.*)^[4].

The Studies on prevalence and type of addict among the population have received poor attention despite its proven implications on health. Hence the present study was conducted to know the pattern of drug addictions in the rural population of Telangana State.

Materials & Methods

The present cross sectional study was conducted in the Nalgonda district of Telangana State, India. A total 9233 members from 11537 households of 19 villages were covered in the study. The study population comprised of all persons more than 10 years of both genders and who have the habits of smoking, tobacco use and alcoholism. Every household was selected by the area in the villages. The survey was carried out by the 10 field surveyors and it was done in 5 months. Systematic random sampling method was used for selection of households. The individuals consuming smoking, smokeless tobacco and alcoholism were selected from households and interviewed personally using a pre-structured and pretested schedule.

Correspondence

K Rajeswari

Senior Research Fellow, AICRP-
Home Science-FN component,
PJTS AU, Telanagana, India

The pre-tested schedule contained relevant data pertaining to socio-demographic variables, habits of smoking, drinking and chewing tobacco in terms of age at the start of habit, frequency of habit, quantity of consumption and period of duration of the habits. The socio-demographic variables collected were age, sex, educational attainment and occupation of the participant and income of the family. Details on the different forms of product used for all the drugs addiction were obtained from the users. The informed consent and responses obtained from the study subjects were entered in questionnaires. The information thus obtained was calculated for the total number, percentages, frequency variables etc. Total current smokers, drinkers and chewers were calculated among the total population by gender wise. Those who

smoke, use tobacco, drink alcohol, different types of products (bidees, cigarettes, chuttas, pan, supari, brandi, whisky, etc) taken per day were calculated into 3 categories viz. 1 to 5 no / <=100 ml, 5 to 10 no/ 101-200 ml, 1- 2 packets/ 200-500 ml, > 2-3 pkts/ 500-1000 ml and > 3 pkts/ >1000 ml by taking the denominator and numerator values of all users. The age range of initiation of drug addiction and duration of drug addiction was also collected in the categories of 1-4 years, 5-9 years, 10-14 years, 15-19 years, 20-24 years, 25 to 29 years and >30 years.

Results & Discussion

Demographic socioeconomic variables of families from which sample population was selected

Table 1: Distribution of families by demographic socioeconomic variables (No. 11537)

Particulars	No. (%)
Gender of the head of family	
Female	1608(14.0)
Male	9929(86.0)
Total members of the family	
1-4 members	6345(55)
5 to 7 members	4961(43)
>=8 members	231(2)
Average family size	3.9(100)
Educational state of head of the family	
Head of family ad illiterates	7111 (61.6)
Head of family ad literates	4426 (38.4)
Occupation of the head of the family	
Agriculture	6017(52)
Agricultural labor	3876(34)
Other labor	857(8)
Business	285(2)
Government employee	310(3)
Private Employee	192(2)
Average Income of the family (per/ann.	
<5000 /-	6059(52.5)
5000-10000 /-	3983(34.5)
>10000 /-	1495(13.0)

Note: Figures in parenthesis indicates percentages

In majority of the families, males (86%) were found as the head of the family compared to females (14%). The family size was 1- 4 members in 55% of the families followed by 5-7 members in 43% of families and > 8 members in 2% of the families. Overall, the average size of the families was 3.9. Majority of the family heads were illiterates (61.6%) than literates (38.4%). Agriculture is the common livelihood occupation in families (50%) followed by agricultural labor (34% families), other labor (8% families), business (3% families) and private employee (2% families). The income per annum was Rs. <5000/- in 52.5% of families followed by Rs.5000 to 10000 in 34.5% families and Rs.>10,000 in 13% families.

Age, educational and occupational status of study population

The distribution of the population in age group wise across all

the villages was depicted in Table 2 and Fig 1. The minor percentage population was observed in the age group of >65yrs (7%) and major the age group of 15-64yrs (93%). Almost similar percentage of males and female population were observed in both categories of age groups.

Table 2: Distribution of study population by age group (No. 9223)

Age group	Number	Percentage (%)
15-64yrs		
Males	4303	47
Females	4237	46
Total	8539	93
>65yrs		
Males	361	4
Females	323	4
Total	684	7
Grand total	9223	100

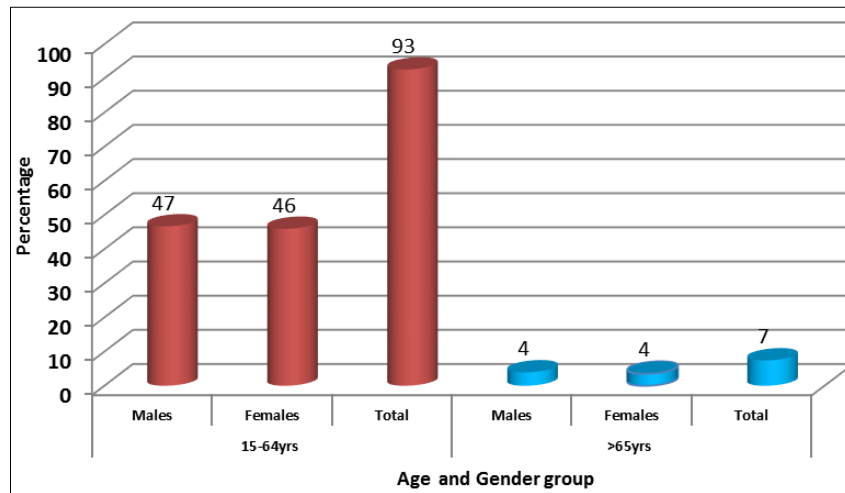


Fig 1: Distribution of study population by age group

Table 3: Educational status of study population (No. 9223)

Education	Number	Percentage (%)	Education	Number	Percentage (%)
Can Read & Write			Illiterates		
Male	654	7	Male	74	1
Female	506	5	Female	411	4
Total	1160	13	Total	486	5
Primary School Education			>10th Class		
Male	1455	16	Male	623	7
Female	800	9	Female	179	2
Total	2255	24	Total	801	9
Secondary School Education			College		
Male	357	4	Male	1170	13
Female	702	8	Female	418	5
Total	1059	11	Total	1588	17
High School Education					
Male	1275	14			
Female	598	6			
Total	1874	20			
Grand total	9223	100			

From the Table 3, it was revealed that the percentage (5%) of illiterates were lesser in the study population. The majority the study population was found to be educated and studied up to Primary School, High School and College was 24%, 20% and 17% respectively. The population in read and write category were learned read and write from the night schools. The percentage of illiterates were found to be higher in females (4%) compared to male population (1%) (Fig 2). Table 4 and Fig 3 provide the information on occupational status of the study population. Agriculture and agricultural laborer was the main livelihood occupation of the study population. The participation of females (16%) was higher in agriculture and allied activities (13%) compared to other occupations. The study population also included students with a percentage of 25 followed by 10 percentage population with no work, 10 percentages of old age people and 2 percentages of housewives.

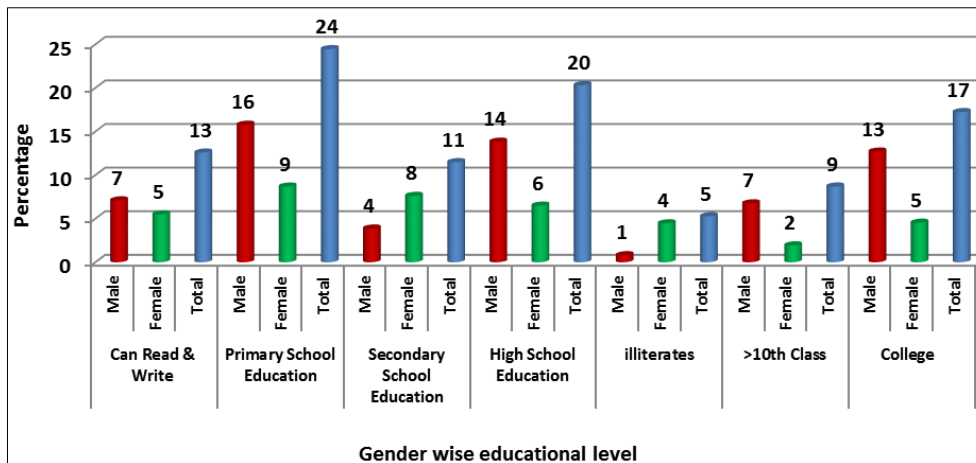


Fig 2: Distribution of study population by education

Table 4: Occupational status of study population (No. 9223)

Occupation	Number	Percentage (%)	Occupation	Number	Percentage (%)
Agriculture			Private Employee		
Male	1883	20	Male	7	0
Female	1507	16	Female	17	0
Total	3390	37	Total	24	0
Agricultural Laborer			Other works		
Male	677	7	Male	95	1
Female	1180	13	Female	66	1
Total	1857	20	Total	161	2
Laborer			Student		

Male	143	2	Male	1351	15
Female	146	2	Female	983	11
Total	289	3	Total	2334	25
Business			House wife		
Male	72	1	Male	10	0
Female	34	0	Female	172	2
Total	105	1	Total	182	2
Government employee			No work		
Male	70	1	Male	440	5
Female	30	0	Female	450	5
Total	100	1	Total	890	10
			Grand total	9223	100

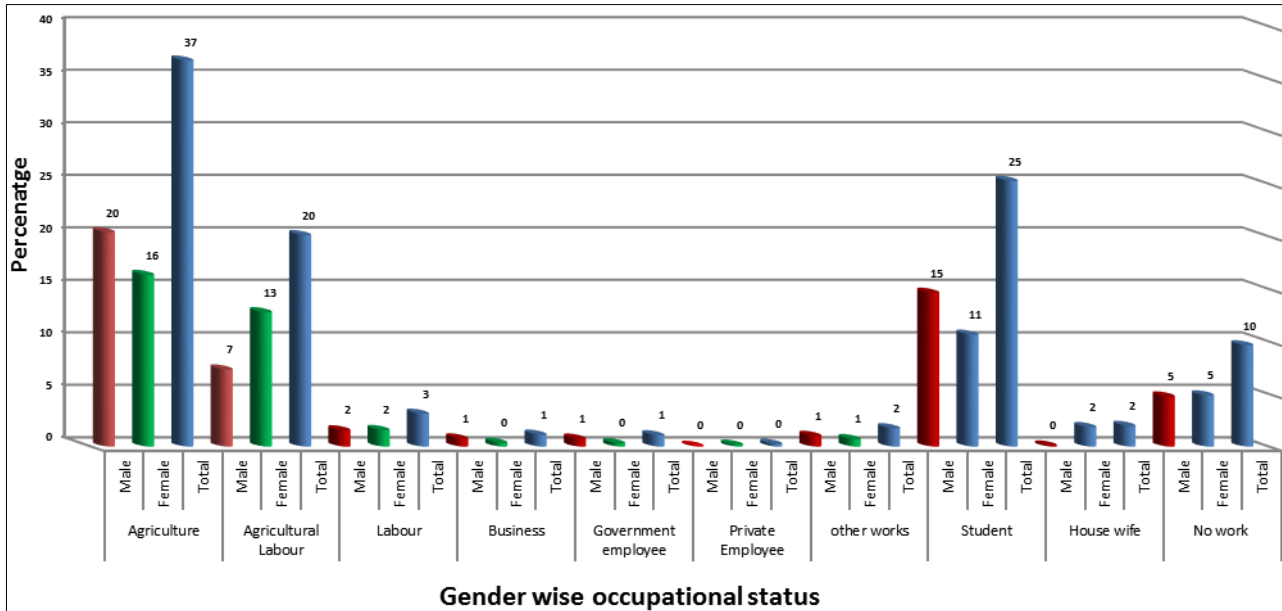


Fig 3: Distribution of study population by occupation

Table 5: Distribution of population with habits of drug addictions (No.9223)

Particulars	Number	Percentage	Frequency
Chewers + Drinkers	338	4	4
Drinkers +Smokers	4851	53	1
Exclusive Chewers	127	1	5
Exclusive Drinkers	2434	26	2
Exclusive Smokers	1050	11	3
Smokers + Chewers	59	1	5
Smokers +Drinkers + Chewers	374	4	4
Grand total	9233	100	

Table 5 revealed that among the total (9233 no) surveyed population drinking cum smoking is the major (53%) addicts followed by exclusive drinking (26%), exclusive smoking

(11%), smoking cum drinking, cum chewing (4%), exclusive chewers (1%), and smoking cum chewing habit (1%) were observed.

Table 6: Gender wise distribution of population by more than one habit (No.9223)

Particulars	Number	percentage	Frequency by female	Frequency by male
Chewers + Drinkers				
Female	21	0.1	4	5
Male	317	1.7		
Drinkers +Smokers				
Female	488	2.6	1	1
Male	4363	23.6		
Exclusive Chewers				
Female	46	0.2	4	6
Male	81	0.4		
Exclusive Drinkers				
Female	471	2.6	1	2
Male	1963	10.6		
Exclusive Smokers				

Female	300	1.6	2	3
Male	750	4.1		
Smokers + Chewers				
Female	14	0.1	4	7
Male	45	0.2		
Smokers + Drinkers + Chewers				
Female	13	0.1	4	4
Male	361	2.0		
Grand total	9233	100		

The drug addiction was more prevalent in male (85.3%) population compared to female (14.7%) population (Fig 4). Drinking and smoking were the major habits observed in both female and male population (Table 6) which, as per National Sample Survey Organization (NSSO, 1950-1951) [5] results. However household survey by National Family Health Survey (NHFS) [6], carried out during the period 1998-1999 on tobacco use and health-related practices and behavior in 26 states revealed that the prevalence of smoking and chewing varied widely between different states and had a strong association with individual's socio-cultural characteristics. The survey also revealed that prevalence of both chewing tobacco/pan masala and smoking tobacco was significantly higher in rural, poorer, and uneducated populations compared to urban, wealthier and more educated populations both in men and women, though the differentials for chewing tobacco were lesser. The socioeconomic gradients (by household wealth as well as by education) were steeper for women than for men for both chewing tobacco/pan masala and smoking tobacco.

According to the study on Non communicable Disease Risk Factors Survey of A.P. carried out by the Ministry of Health and Family Welfare [7], smoking status of the population in Andhra Pradesh rural areas was 4.9% in females and 33.9% in males and of urban area 0.8% in females and 23.0% in males. As per the World Health Organization-NCD Country profiles [8], 2011 the percentage of current daily smokers in males and females was 25.1 and 2.0 respectively which are almost similar to the survey results.

A study on Non communicable Disease Risk Factors Survey, A.P. carried out by the Ministry of Health and Family Welfare revealed that in rural and urban areas of Andhra Pradesh the percentage of population consuming alcohol was 2.2% in

females and 36.1% in males and 3.5% in females and 36.2% in males respectively. The study on Non communicable Disease Risk Factors Survey, A.P. carried out by the Ministry of Health and Family Welfare also revealed that the percentage of tobacco users in rural and urban areas of Andhra Pradesh were 12.2 for males and 5.1 for females and 14.3 for females and 3.0 for females respectively.

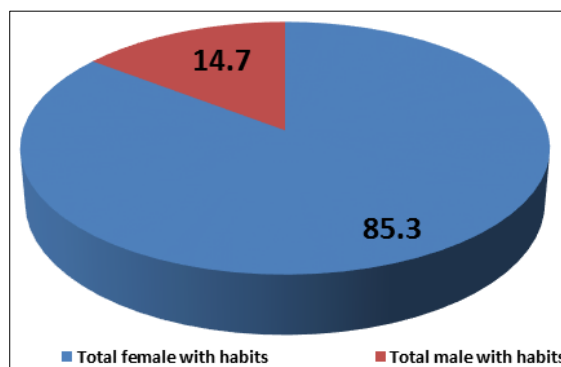


Fig 4: Genderwise distribution of population with drug addictions

Frequency of drugs use

The Fig 5 shows that frequency of consumption of drug use. It was showed that the majority of the study population uses smoking, tobacco and alcohol regularly or daily. Further the rare use of alcohol and tobacco was also observed in the study population (6%, smokers, 23% tobacco users and 46% alcohol users). The rare drug users may include the women or students who usually consume alcohol in festivals and family parties, the common practice observed in the women population of Telangana state, India.

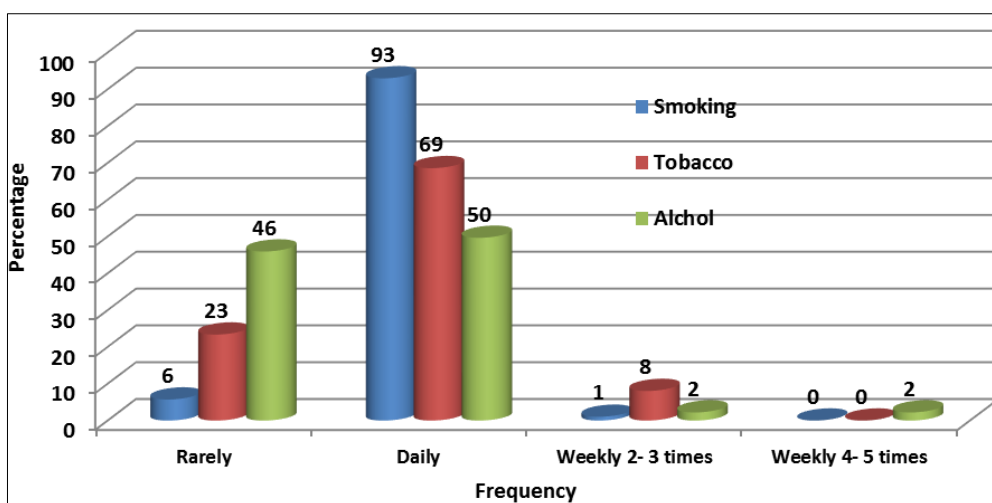


Fig 5: Frequency of smoking, tobacco and alcohol use

Age at initiation of drugs use

Fig 6 shows the starting age of drugs use. Majority of the

study population started the use of smoking, tobacco and alcohol at the age of 20-24 years followed by 15 to 19 years.

The previous studies also indicated that adolescents are vulnerable especially to addictions and may be more likely than adults to develop an addiction to habits [9]. (Chakraborty A.K., *et al.*, 2009) [9]. Meager percentage of population informed that they started

the use drugs at ≥ 30 years age group. These groups might include the students who are able to settle or women's group who have completed their pregnancies and have no distractions to consume drugs at the age ≥ 30 years.

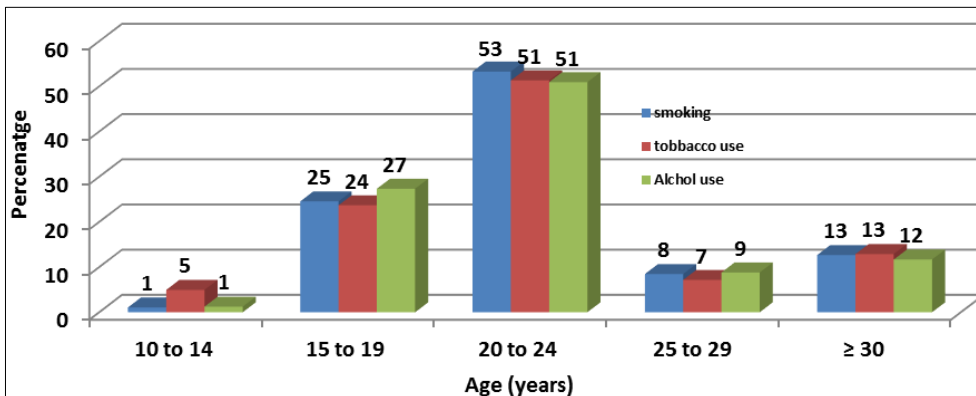


Fig 6: Age at initiation of drugs use

Quantity of drugs use:

Fig 7 showed the quantity of drugs use per day. The daily consumption of tobacco and smoke items either in any form was found to be around 1-5 packets in majority (79 -89%) of the drug users. But the alcohol consumption found was 500-1000ml per day in alcoholics. From the Fig 8, it is revealed that highest percentage of the

population (smoking (42%) and alcoholism (39%)) was using the drugs for more than ≥ 30 years period from the age of initiation in both genders. The habit of chewing tobacco was persisted only for a period of 1-4 years in 16%, 5-9 years in 20%, 10-14 years in 16%, 15-19 years in 12%, 20-24 years in 8%, and 25-29 in 15% of population from the initiation age at drug use.

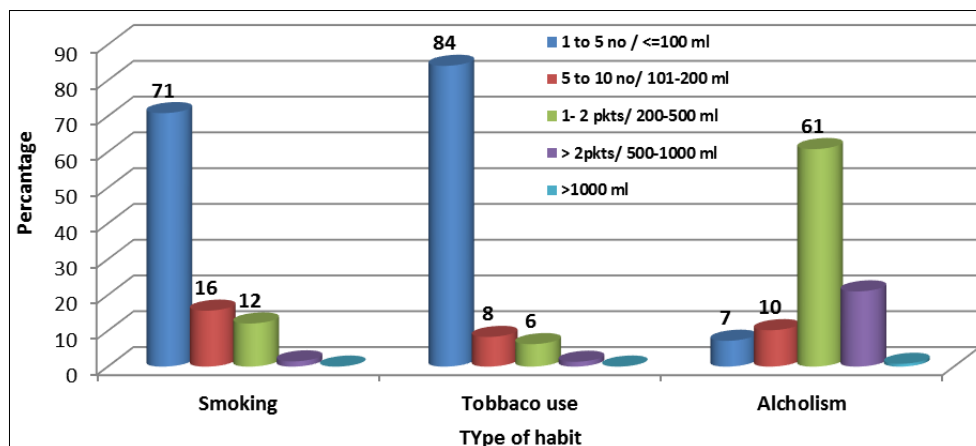


Fig 7: Quantity of drugs consumption per day

Duration of drugs use

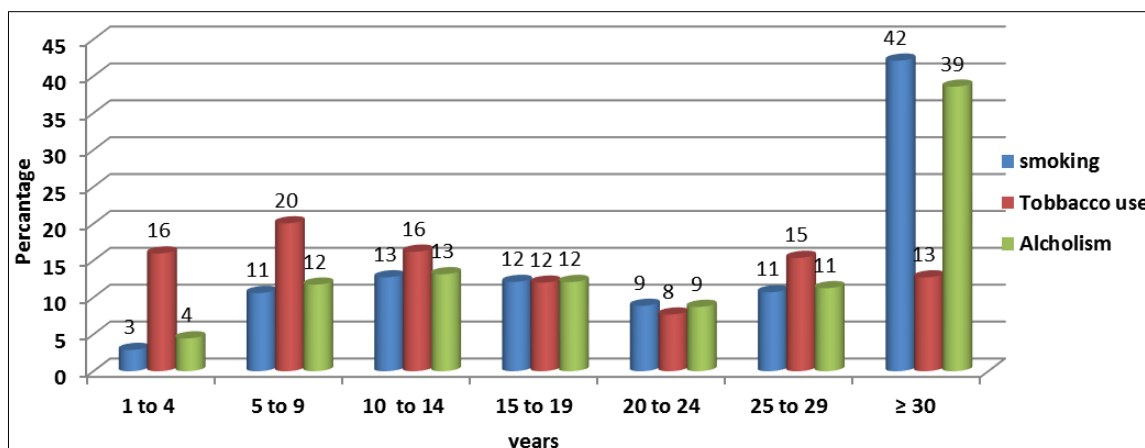


Fig 8: Duration of drugs use

Type of drug use

The type of tobacco used by the majority of users was pan supari and pogaku (46.3%) followed by pan supari (38.7%) and pogaku (15.1%) in both genders. Majority of the smokers were using chutta (46.6%) compared to beedi (38%), cigarette

(15%) and others (0.41%). The consumption of toddy (natural) was higher (46.3%) in alcoholics compared to other types of alcohols viz. local liquor (38.9%) and branded alcohol (14.5%). This might be due to better availability in study area or preference by the people.

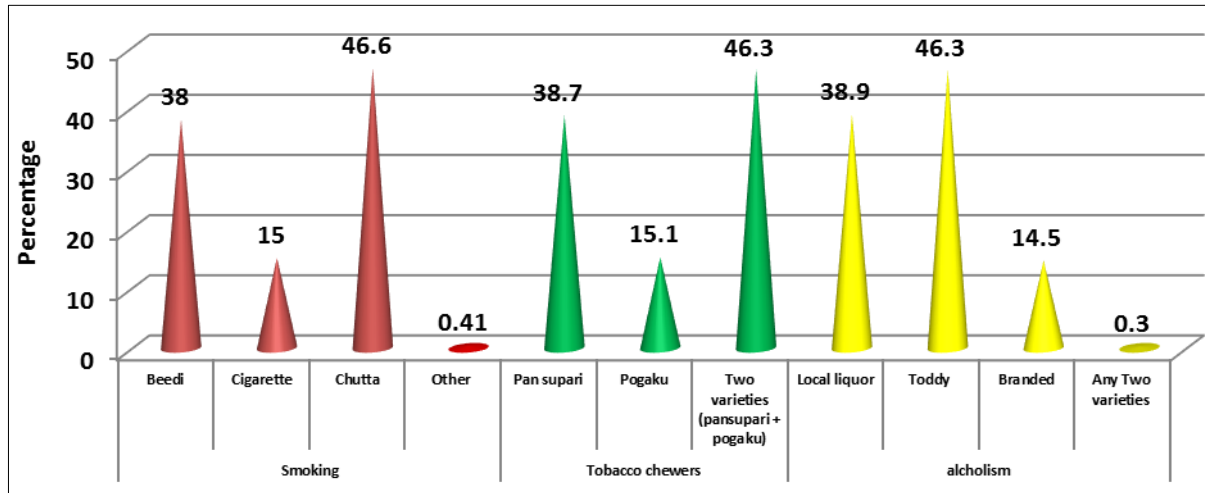


Fig 9: Type of drug use

Conclusion

The above study revealed that prevalence of drug addiction was quiet common among the rural population. The present study also indicated the trend of smoking, tobacco use and alcoholism was initiating at an early age and persisting for more than 20 years. This leads increased disease burden of already existing due to nutrition related illness and communicable diseases in the rural or tribal population. The joint educational and motivational policies than single-handed health policies are utmost relevant to prevent the drug addiction and subsequent health issues. The Motivational policies aiming for behavioral change zto eradicate the problems from the gross root level.

References

1. Ramakrishna GS, Sarma P, Thankappan KR. Tobacco Use among Medical Students in Orissa. *Natl Med J India*. 2005; 18:285-99.
2. Diraa O, Fdany K, Boundouma M, Elmdaghri N, Gajalakshmi V, Pets R *et al*. Smoking and mortality from tuberculosis and other diseases in India: Retrospective study of 43,000 adult male deaths and 35,000 controls. *Indian J Tuberc*. 2004; 51:116-20.
3. Ministry of Health and Family Welfare, Government of India. Global Adult Tobacco Survey: India Report 2009-10. New Delhi, India, 2010. Available from: http://whoindia.org/EN/Section 20/ Section 25_1861.htm. [Last Accessed on 2011 Oct 22].
4. Chaudhary K, Prabhakar AK, Prabhakaran PS, Prasad A, Singh K, Singh A. Prevalence of Tobacco Use in Karnataka and Uttar Pradesh In India. *New Delhi Indian Council of Medical Research*, 2001.
5. National Sample Survey Organisation. A Note on Consumption of Tobacco in India. *Sarvekshana, A Journal of the National Sample Survey Organization*. 1998; 21:69-100.
6. International Institute for Population Sciences. Background Characteristics of Households: National Family Health Survey-2 (NFHS-2) - 1998-1999. Mumbai: IIPS, 1999.

7. Report of Integrated Diseases Surveillance project (IDSP) on Non Communicable Disease Risk Factors Survey 2007-08 Andhra Pradesh, Ministry of Health and Family Welfare, [OI.https://www.icmr.nic.in/sites/default/files/reports/Andhra_Pradesh_0.pdf](https://www.icmr.nic.in/sites/default/files/reports/Andhra_Pradesh_0.pdf)
8. https://www.who.int/nmh/publications/ncd_profiles2011/en/
9. Chakraborty AK. Smoking and Drug-Abuse among the Newly Admitted Students of Medical Colleges In West Bengal. *Indian J Public Health*. 2009; 25:30-45.