

# Study to assess the prevalence of risk factors of substance abuse among Adolescents and to seek its association with selected factors in selected schools of U.P

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## Abstract

**Background:** Children are an important asset for future of a nation. About 1.2 billion adolescents aged between 10 and 19 years of age, 16 per cent of the world's population. More than half of all adolescents globally live in Asia. Substance abuse is now increasingly seen in school-going children, earlier it was only limited to street children.

**Objective:** To assess the prevalence of risk factors of substance abuse among adolescents, to determine the association of prevalence of risk factors of substance abuse among adolescents with selected factor.

**Methods:** Research design selected for study was descriptive survey design. 220 adolescents selected by Purposive sampling technique from selected higher secondary school between 15 and 18 years of age. Structured questionnaire was used to obtain data from the respondents on socio-demographic characteristics and risk factors of substance abuse. The data was analyzed using descriptive and inferential statistics.

**Results-** Majority of population comes under 'moderate' level of prevalence. It was found that personal stress as the first ranked risk factor of substance abuse among the all risk factors. Gender distribution of substance abuse among male were higher as compare with female. There were significant associations found between selected factors-gender, family income, family history of substance abuse and area of residence with the prevalence of risk factors of substance abuse.

**Conclusion:** The need of the hour is to educate and counsel young children and adolescents and create awareness among the public regarding substance abuse.

**Keywords:** Substance abuse, Adolescents, Prevalence, Risk factors.

## I. INTRODUCTION

The childhood and adolescent years are important developing years of life during which the child get academic, cognitive, social and life skills. Any substance abuse at this age is likely to impede with the normal child development and may have a lasting influence on the future life. <sup>[1]</sup> As a result of early initiation of substance abuse not only the child is likely to be affected, but the family and society as a whole are also affected. Thus, this topic is a matter of concern. <sup>[2, 3]</sup> Recent times have evidence a gradual increase in substance use among adolescents; with more people begin substance use from younger age. The problem is seen across all socioeconomic groups, from urban and rural areas among street child to school going children. Uses of multiple substance and unfamiliar drugs also being documented. <sup>[4]</sup> Early initiation of substance use is usually associated more serious effect on health, education, familial or social relationships. Substance use may lead to interrupt in studies and even terminate out of school, behavioral problems and may also cause relationship difficulties. Early initiation of substance abuse may also lead to anti-social behaviors e.g. lying, stealing, pick pocketing etc and other high risk behaviors (e.g. driving under influence, violence). <sup>[5, 6]</sup>

## OBJECTIVES

1. To assess the prevalence of risk factors of substance abuse among senior secondary school children
2. To determine the association of prevalence of risk factors of substance abuse among senior secondary school children with selected factor

## II. METHODOLOGY

### 2.1 Setting:

The present study was conducted in selected schools of Meerut, Uttar Pradesh.

### 2.2 Population:

The study population comprised of higher secondary school children between 15 and 18 years of age from the selected schools of Meerut, Uttar Pradesh.

### 2.3 Sample and sampling techniques:

**Sample:** Adolescents (15-18 years) from selected senior secondary school of U.P.

**Sample size:** - 220

**Sampling technique:** purposive sampling

**2.4 Research approach:**

Quantitative research approach

**2.5 Research design:**

Descriptive survey design- Since the study intends to assess the prevalence of risk factors of substance abuse.

**2.6 Variables:**

**Attribute variables** - background factors such as the gender, education of parents, occupation of parents, family income, type of family and family history of substance abuse, place of stay, area of residence.

**Dependent variable:** Prevalence of risk factors of substance abuse among higher secondary school children.

**2.7 Criteria for selecting sample:**

Higher secondary school children of 15-18 years of age

Students who were willing to participate

Students who were present during pre test and post test.

**2.8 Data collection tool and technique:**

A structured questionnaire to assess the prevalence of risk factors of substance abuse includes 2 sections:

**Section I** - Socio- demographic data

**Section II**- comprises of 23 questions- consist of items seeking information on drug availability, peer group pressure, personal Stress and parental stress, personal attitude/ belief.

**Scoring**- Classifies the prevalence of risk factors of Substance Abuse into very high, high, moderate and low prevalence.

**2.9 Data collection procedure**

Study sample size was 220 of selected schools of 11 standard students. Higher secondary school children were provided with general information on the purpose of the study after obtaining consent. They were assured of confidentiality. Structured questionnaire was administered. Time taken to complete all procedures ranged from 30-40 minutes.

**2.10 Data analysis**

The data was planned to organise, tabulate, analyze and interpret by using both descriptive and inferential statistics.

Survey to assess the prevalence of risk factors of substance abuse among higher secondary school children

**Section I:** Findings related to frequency and percentage distribution of sample characteristics

**Section II:** Findings related to prevalence of risk factors of Substance Abuse among higher secondary school children in selected schools.

**Section III:** Findings related to association between prevalence of risk factors of Substance Abuse and selected factors

**3. RESULTS****Section- I**

**Table 3.1:** Findings Related To Frequency and Percentage Distribution of Sample Characteristics  
n=220

Sl. No.	Demographic characteristics	Total	
		F	%
	<b>Age</b>		
	a) 16years	12	5.5
	a) 17 years	50	22.7
	b) 18 years	158	72.2
	<b>Gender</b>		
	a) Female	107	48.8
	b) Male	113	51.2
<b>3</b>	<b>Education Of Father</b>		
	a) Primary school	8	3.6
	b) High school	32	14.5

	c) Higher secondary school	61	27.6
	d) Graduation	69	31.2
	e) Post Graduation	50	23.1
<b>4</b>	<b>Education of Mother</b>		
	a) Primary school	49	22.3
	b) High school	74	33.63
	c) Higher secondary school	48	21.7
	d) Graduation	43	19.54
	e) Post Graduation	6	2.7
<b>5</b>	<b>Occupation of Father</b>		
	a) Government	40	18.2
	b) Private	61	27.6
	c) Business	91	41.4
	d) Agriculture	27	12.3
	e) Nil	1	0.9
<b>6</b>	<b>Occupation of Mother</b>		
	a) Government	41	18.6
	b) Private	26	11.8
	c) Business	13	5.9
	d) House wife	136	61.5
	e) Agriculture	5	2.3

### Section II

**Table 3.2** Findings Related To Prevalence of Risk Factors of Substance Abuse  
n=220

Prevalence & scoring	Total	
	F	%
Low prevalence of risk factors (0-12)	30	13.5
Moderate prevalence of risk factors (12-23)	138	62.9
High prevalence of risk factors (24-35)	47	2.3
Very high prevalence of risk factors (36-47)	5	21.3

Table 3.2 show the prevalence of risk factors of Substance Abuse it shows that 2.3% of population has “very high” prevalence of risk factors and 21.3% of population had ‘high’ prevalence of risk factors of Substance Abuse. Majority of population comes under ‘moderate’ level of prevalence (62.9%) and 13.5% of population is of low prevalence

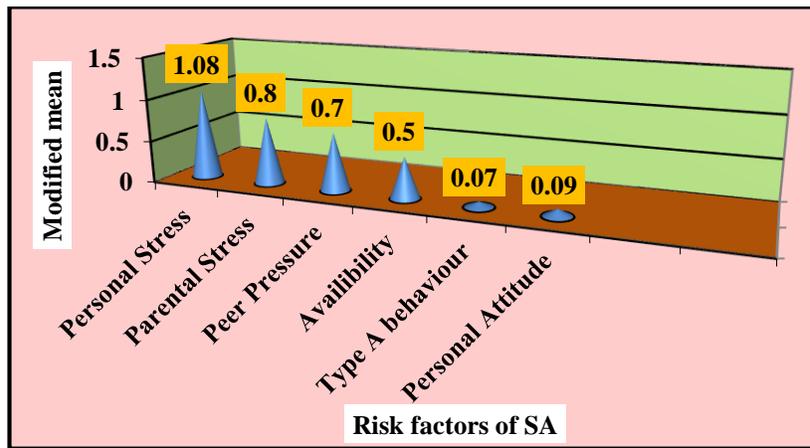


Fig 1- Shows The Area Wise Distribution Of Risk Factors

Fig 1 shows that personnel stress (1.08) as the first ranked risk factor of substance abuse among the all risk factors Parental stress was found as next prevalent risk factors (0.13), personal attitude/ belief to substance abuse was found to be (0.09). Fig 3 shows the gender distribution of substance abuse

**Table 3.3** Frequency and percentage Distribution of Prevalence of Substance Abuse  
N= 37

Prevalence	Total	
	F	%
Tobacco	22	10.4
Alcohol	8	3.6
Inhalants	2	0.9
Cannabis	4	1.8
pharmaceutical sedatives	1	0.4%

The data presented in the table 3.3 shows the prevalence of Substance Abuse among Higher Secondary School Children out of 220 sample 37 of them were involved in substance abuse and it shows that (10.4%) of the students were using tobacco (smoking/ chewing) with a frequency of 22, (3.6%) of alcohol use (Beer, Wine, Hard Liquor, Desi Alcohol), (0.9%) of inhalants (Ink eraser fluid, Petrol, Glue, Iodex etc), (1.8%) of cannabis use (Bhang, Ganja) with frequency of 4 and pharmaceutical sedatives use (alprax) 0.4% with frequency of 1.

**Table 3.4** Frequency and percentage Distribution of Prevalence of Substance Abuse among Male and Female

N =37

Prevalence	Total	
	F	%
Male	29	78.37
Female	8	21.6

Table 3.4 shows that out of 37 Adolescents frequency of male were 29 (78.37%) and female 8 (21.6%)

### Section III

**Table 3.5** Chi Square Value Showing the Association Between The Prevalence of Risk Factors Of Substance Abuse And Selected Demographic Factors

S.No	Sample Characteristics	df	Significant Chi Square Value/ table value	n=220
				Chi Square Value
1.	Gender	3	7.815	9.419*
2.	Education of Father	12	21.026	15.699 NS

3.	Education of mother			
4.	Occupation of father	12	21.0266	16.681 NS
5.	Occupation of mother	12	21.0266	11.519 NS
6.	Family Income (monthly) in rupees	15	24.996	25.44*
7.	Type of family	6	12.592	3.036 NS
9.	Family history Substance Abuse	3	7.815	8.841*

\*significant at the level of 0.05

NS- Not significant at the level of 0.05

Results of table 3.5 shows that there were significant associations found between selected factors – gender, family income, family history of substance abuse, area of residence with the prevalence of risk factors of substance abuse

#### IV. DISCUSSION

In the present study, substance abuse among the males and females, were comparable to the findings of studies by other authors, it was noted similar results with that of other studies. [7-9]

Personal stress, acceptability among friends and easy availability of substances, has been the most common reason for continuation. These reasons have been cited even by other authors. [10-16]

#### V. CONCLUSION

Drug abuse is a very common and major problem related to health and social concern. The beginning of drug abuse at early adolescence result in continuation of drug to the adulthood. Therefore, preventive approach is recommended to be planned. As most of the studies are either done on small scale on school children or street children, more studies are required to be done in India on substance abuse among adolescents to see the current scenario and to deal with this issue.

#### VI. ACKNOWLEDGEMENT

The author wish to acknowledge and commend the administrative and study participants for their support.

**Funding:** Nil

**Conflict of interest:** None initiated.

#### REFERENCES

##### Journal article

- Bharath Chakravarthy. Adolescent drug abuse - Awareness & prevention. *Indian J Med Res.* 2013 Jun; 137(6): 1021–1023. PMID: PMC3734705
- Qadri S, Goel RKD, Singh J, Ahluwalia S, Pathak R, Bashir H. Prevalence and pattern of substance abuse among school children in northern India: A rapid assessment study. *Int J Med Sci Pub Health.* 2013. DOI: 10.5455/ijmsph.2013.2.271-80
- Ray R. National Survey on extent, Pattern and Trends of Drug Abuse in India. Ministry of Social Justice and Empowerment and United Nations Office on Drug and Crime Regional Office for South Asia; 2004
- F Islam. Substance Abuse amongst the Street-children. *Ann Med Health Sci Res.* 2014 Sep-Oct; 4(Suppl3): S233–S238. doi: 10.4103/2141-9248.141965, PMID: PMC4212383
- Global Youth Tobacco Survey: India 2009 Fact Sheet. <http://www.who.int/fctc/reporting/Annexoneindia.pdf>
- Pratima Murthy. Substance use and addiction research in India. *Indian J Psychiatry.* Jan 2010; 52(Suppl1): S189–S199. doi: 10.4103/0019-5545.69232 PMID: PMC3146212
5. Madu SN, Matla MQ. Illicit drug use, cigarette smoking and alcohol drinking behaviour among a sample of high school adolescents in the Pietersburg area of the Northern Province, South Africa. *J Adolesc.* 2003; 26:121–36.
6. Chen KT, Chen CJ, Fagot-Campagna A, Narayan KM. Tobacco, betel quid, alcohol, and illicit drug use among 13- to 35-year-olds in I-Lan, rural Taiwan: prevalence and risk factors. *Am J Public Health.* 2001; 91:1130–4.
7. Sutherland I, Willner P. Patterns of alcohol, cigarette and illicit drug use in English adolescents. *Addiction.* 1998; 93:1199–208.
- Komro KA, Maldonado-Molina MM, Tobler AL, Bonds JR, Muller KE. Effects of home access and availability of alcohol on young adolescents' alcohol use. *Addiction.* 2007; 102:1597–608.
- Sargent JD, Beach ML, Dalton MA, Mott LA, Tickle JJ, Ahrens MB, et al. Effect of seeing tobacco use in films on trying smoking among adolescents: cross sectional study. *BMJ.* 2001; 323:1394–7.
- Kwamanga DH, Odhiambo JA, Amukoye EI. Prevalence and risk factors of smoking among secondary school students in Nairobi. *East Afr Med J.* 2003; 80:207–12.

13. Maziak W, Mzayek F. Characterization of the smoking habit among high school students in Syria. *Eur J Epidemiol.* 2000; 16:1169–76.
14. Sinha DN, Gupta PC, Pednekar M. Tobacco use among students in Bihar (India). *Indian J Public Health.* 2004; 48:111–7.
15. Singh V, Gupta R. Prevalence of tobacco use and awareness of risks among school children in Jaipur. *J Assoc Physicians India.* 2006; 54:609–12.
16. Sinha DN, Roychowdhury S. Tobacco control practices in 25 schools of West Bengal. *Indian J Public Health.* 2004; 48:128–31.

**Books:**

1. Best, J.W & Khan. *Research in Education.* 7<sup>th</sup> Ed., New Delhi: Prentice Hall of India (P) Ltd; 2004.
2. Fox, D.J.et al. *Research in Nursing.* 4<sup>th</sup> Ed., New York: Appleton Century Craft; 1992.
3. Garret, H.E. *Statistics in psychology and education.* 12<sup>th</sup> Ed., New Delhi Paargon International Publishers; 2009.
4. George, G.B. *Fundamental Statistics in Psychology and Education.* Tokyo: Mc Graw Hill International Book Company; 1981.
5. Guilford, J.P. *Fundamental Statistics In Psychology And Education.* 3<sup>rd</sup> Ed., New York: Mcgraw-Hill Book Company, Inc; 1956.
6. Polit, D.F. & Hungler, B.P. *Nursing Research: Principles and Methods.* 5<sup>th</sup> Ed., Philadelphia: J.B. Lippincott Company; 2011.
7. Rao, S.P.S.S. & Richard, J. *Introduction To Biostatistics And Research Methods.* 4<sup>th</sup> Ed., New Delhi: Prentice-Hall of India, Private Limited; 2006.
8. Treece & Treece. *Elements of Research in Nursing.* 4<sup>th</sup> Ed., Philadelphia: CV Mosby Company; 1981.
9. Wood, G.L. & Haber, J. *Nursing Research.* 5<sup>th</sup> Ed., London: CV Mosby; 2002.

**Conference papers**

1. Bisht, S. "A comparative study to find out prevalence of tobacco consumption among urban and rural school students and to evaluate the effectiveness of planned teaching programme in terms of knowledge & attitude regarding tobacco consumption & its harmful effects in selected secondary schools of Delhi". Unpublished master of nursing thesis, University of Delhi, 2007.
2. Tuppad, S.B. "A study to evaluate the effectiveness of structured teaching program on knowledge regarding ill effects of smoking among students of government high school, fort Bangalore, India". Published thesis, Haramaya University, Ethiopia, 2006

