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PREVALENCE OF SMOKING AND THE AWARENESS OF ITS HEALTH HAZARDS AMONG BOYS IN THE AGE GROUP 17-21 YEARS

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ABSTRACT: BACKGROUND: Tobacco is the second major cause of death worldwide and is currently responsible for about 5 million deaths each year worldwide according to the WHO.¹ **OBJECTIVES:** (1) To know the prevalence of smoking among boys of the age group of 17-21 studying in various undergraduate colleges. (2) To assess among them the awareness of the various health hazards caused due to smoking. **MATERIALS & METHODS:** A Cross sectional study was conducted in 150 boys who are studying in various undergraduate colleges. **RESULTS:** About 36% of the study population in our study is smokers. Majority of smokers 64.7% started smoking between the age group of 15-18. Idea about possibilities of quitting smoking is only 53.5%. **CONCLUSION:** The prevalence 36% of smoking is alarming in the boys of age group 17- 21 years which has to be taken very seriously and wide spread health education activities has to be taken regarding health hazards and also efforts undertaken to motivate the young adolescents towards quitting.

KEYWORDS: Prevalence, Smoking, awareness, Health hazards, Boys, 17- 21 years.

INTRODUCTION: Prevalence of smoking usually refers to estimated population of people who are in a habit of smoking at any given point of time. Tobacco use primarily begins in adolescence. Many of the smokers will have their first cigarette by the age of 14 and majority by 21. Peers, siblings and friends are powerful influences. Most common situation for trying the first cigarette is with a friend who is already a smoker. Smoking at an early age is associated with greater degree of addiction than at later ages.

According to GYTS survey the overall median percent of students who had ever smoked cigarettes, even one or two puffs, was 33.0%. The highest percent who ever smoked cigarettes was in the Northern Mariana Islands (79.8%), and the lowest in Tamilnadu, India. (3.4%).²

Tobacco use is one of the major preventable causes of death in the world. The World Health Organization attributes over four million deaths a year to tobacco. This figure is expected to rise to 10 million deaths a year by 2030, with 70% of these deaths occurring in developing countries.³

Components of Cigarette Smoke:

- There are 3000 chemicals, out of which 19 are known to be carcinogens.
- There are radioactive elements like lead and polonium which are responsible for leukemia.
- Nicotine being a powerful stimulant even in small quantities is liable to cause psychological dependence.
- Nicotine causes adrenaline release which in turn increases Blood Pressure, Increased Heart rate and free acid levels.
- More long term effects of cigarette smoking are due to other combustion products of cigarette smoke.

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Biological effects of smoking:

- On Cardio vascular System- Atherosclerosis, Stroke, Thromboangitis obliterans.
- On Respiratory system- Recurrent Upper Respiratory Infections, Chronic Obstructive Pulmonary disease.
- On Central Nervous system- Decreased memory and Cognitive power
- On Reproductive system- Impotence, Infertility.
- Birth defects and Spontaneous Abortions.
- Mental health- Tobacco use in adolescence is associated with a range of health compromising behaviors involving in fights, carrying weapons, engaging in high risk sexual behavior and using Alcohol and Drugs.

DE-ADDICTION: As nicotine is the cause for psychological dependence, by Nicotine Patch or Gum, addictive craving is satisfied by delivering nicotine without nicotine combustion products.

OBJECTIVES:

1. To know the prevalence of smoking among boys of the age group of 17-21 studying in various undergraduate colleges of Hyderabad.
2. To assess the awareness among them of the various health hazards caused due to smoking.

MATERIALS AND METHODS: This survey is conducted to study the prevalence of smoking and the awareness of its health hazards among 150 boys in the age group of 17-21 studying in various undergraduate colleges of Hyderabad. Design: Cross sectional community based study. Prior consent was taken from all the subjects. The adolescents in the age group of 17-21 years were interviewed with predetermined and pre tested questionnaire. The study was undertaken from July 2011 to October 2011 for 4 months. Data was analysed by using SPSS. Chi square test was applied to test the relationship of categorized independent and dependent variables. A P value (significance) of <0.05 was deemed statistically significant.

RESULTS:

Age	Non- Smokers %	Smokers %
17-18	12	7
19-20	23	11
21-22	19	18
Total	54	36

Table 1: Percentage of smokers according to age

INFERENCE: About 36% of the study population in our study was smokers.

According to Global Health Observatory (GHO), Prevalence of Tobacco use in 2009, smoking among men was highest in the WHO Western Pacific Region, with 51% of men aged 15 and above smoking some form of Tobacco. Smoking among women was highest in the WHO European Region at 22%. The rates at which adolescent boys use tobacco average around 18% globally.⁴

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According to the study by Jayakumary Muttappallymyalil et al, an overall prevalence of 5.5%. The prevalence observed among boys was 12% and none of the girls were tobacco users.⁵

Age	11-14 yrs	15-18yrs	19-22yrs
17-18	11%	9.2%	0%
19-20	9.2%	29.6%	3.7%
21-22	3.7%	25.9%	7.4%
Total	23.9%	64.7%	11.1%

Table: 2 Age at which the boys started smoking

INFERENCE: Majority of smokers 64.7% started smoking between the age group of 15-18 in our study.

In a similar study conducted by Raj Narain, Sarita Sardana et al, Tobacco addiction is emerging as a big threat among children. Their findings indicate a recent downward shift in the age of initiation of tobacco uptake and rising prevalence among girls. Such data need to be collected from different parts of the country to develop anti- tobacco campaigns and take policy decision.⁶

Age	Less than 5%	5-10%	10-15%	More than 15
17-18	5.5	12.9	3.7	1.8
19-20	27.7	5.5	9.2	0
21-22	16.6	9.2	7.4	0
Total	49.8	27.6	20.3	1.8

Table: 3 Number of cigarettes smoked per day

INFERENCE: Majority of them (49.8%) smoke less than 5 cigarettes per day, 27.6% of them smoke around 5-10 cigarettes per day.

Age	Friends %	Family %	Relatives %	Media %
17-18	20.1	0	2.7	1.6
19-20	41.3	0	1.8	7.1
21-22	27.5	3.7	0	5.4
Total	88.9	3.7	4.5	14.1

Table: 4 Introduction to smoking through

INFERENCE: Majority (89%) of the boys in our study take up smoking because of their friends. Around 14% are influenced by media.

In a study conducted by TL Ravi Shankar, Ramesh Nagarajappa, show that 17.3% of the adolescents have experimented with tobacco. Curiosity and peer pressure were the main reasons behind trying tobacco. Parental tobacco status, especially place of use (at home or outside), has a significant influence on adolescents experimenting tobacco.⁷

In the similar study conducted by Rahul Sharma et al, the prevalence of tobacco use overall was found to be 20.9%, and was significantly higher ($P=0.016$) among the males than the females.

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Tobacco use was found to be significantly associated with having seen a brother/sister smoke (OR 5.15), best friend smoke, (OR 2.92), and belonging to a nuclear family (OR 1.96), the influence of role models plays a role.⁸

Age	Pleasure (%)	Stylish (%)	Peer- pressure (%)	Adventurous (%)
17-18	9.2	7.4	3.7	0
19-20	9.2	10.3	3.7	9.2
21-22	20.3	11.1	0	5.5
Total	38.7	28.8	7.4	14.7

Table 5: What made the boys start smoking

INFERENCE: The major reasons for smoking were pleasure (38.7) and also it was considered stylish. (28.8%).

Age	Injurious %	Not- Injurious %	P VALUE
17-18	22.5	0	0.004
19-20	29.6	12.9	
21-22	31.5	3.8	
TOTAL	83.6	16.7	

Table 6: Percentage of boys who were Aware that smoking is Injurious to health

INFERENCE: 84% of the smokers were well aware that smoking is injurious to health. The difference is significant.

In a study of Adolescents' perceptions about smokers in Karnataka, India by Upendra M Bhojani*, Maya A Elias[†] and Devadasan N[†] Majority of respondents (84.6%) reported negative perceptions about smokers while 20.4% of respondents reported positive perceptions. Female students reported significantly higher disapproval rate (negative perceptions) for smoking compared to male students.⁹

Age	Ill- effects known	Ill effects not Known %	P VALUE
17-18	20.2	12	0.004
19-20	22.9	9	
21-22	31.9	4	
Total	75	25	

Table 7: Percentage of smokers, Aware of Ill effects

INFERENCE: Approximately 75% of smokers were aware of the ill effects of smoking. It is significant difference.

In a study by S.K. Jindal, A.N. Aggarwal, A substantial proportion of population in India has current or past smoking habit with higher prevalence among males than females. The quit-rates have been low in spite of the various anti-tobacco measures. There is a significant respiratory morbidity associated with smoking.¹⁰

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In a similar study by S. Awasthi, S.K. Jha et al, About 21.2% of the students were found as current tobacco users. Students whose friends used tobacco were more likely to use than those whose friends were non- users. Students, who are unaware of the hazards of tobacco consumption, are more likely to use tobacco.¹¹

Age	Yes%	No%	P VALUE
17-18	21.3	4.1	0.01
19-20	25.9	4.3	
21-22	29.2	15.2	
Total	76.4	23.6	

Table 8: Knowledge about passive smoking

INFERENCE: 76% of the smokers were aware of passive smoking. It is significant.

Age	Yes%	No%	P VALUE
17-18	12.9	9.2	0.592
19-20	20.3	22.2	
21-22	20.3	14.8	
Total	53.5	46.2	

Table 9: Idea about Possibilities of quitting smoking

INFERENCE: Idea about Possibilities of quitting smoking was only 53.5% and it is not significant.

Age	Yes%	No%	P VALUE
17-18	12.9	7.4	0.016
19-20	12.9	29.6	
21-22	20.3	16.6	
Total	46.1	53.6	

Table 10: Percentage of smokers who have ever tried stopping

Out of the 53.5% smokers who think that smoking can be stopped (Table 9) 46.1% have actually tried stopping, which is significant difference.

CONCLUSIONS & RECOMMENDATIONS: More than 1/3rd of the 150 students included in the present study were smokers, in spite of 86% of them being aware that the smoking is injurious to their health. This shows that it is not mere health education but motivation that is required more to make them stop smoking.

Majority have taken up the habit of smoking between the age group of 15- 18. Therefore this age group should be targeted to prevent them from taking up smoking. Anti-tobacco campaigns and policy making has to be given priority.

Half of them consider that quitting smoking is difficult once started. They should be educated about the De- Addiction methods available.

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