

Prevalence, Pattern & Risk Factors of Tobacco Smoking among Male Adult Population of Hayatabad Peshawar Khyber Pakhtunkhwa Pakistan

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ABSTRACT

Background: The prevalence of tobacco smoking is increasing day by day and it kills one third of its users. According to World Health Organization, 6.2 million deaths per year are attributed directly to tobacco smoking.

Objectives: To find the prevalence, pattern and risk factors of tobacco smoking among male adult population of Hayatabad District Peshawar Khyber Pakhtunkhwa Pakistan.

Study design: A cross-sectional descriptive study

Place and duration of study: Hayatabad district Peshawar Pakistan, from February 2021 to August 2021

Methods: After taking ethical approval, a cross-sectional study was conducted. Male adults of age more or equal to 18 were included in the study while those not permanent residents of district were excluded from the study. Samples were selected from two phases i.e. phase V & VII. A total of 385 male adults were included in the study based on 50% prevalence and 95% confidence interval. A structured was used to collect data and presented in form of tables.

Results: Out of 385 respondents, 39.48% had positive tobacco smoking status. Out of 152 current smokers, 71.71% were of age less than 30 years, 21.05% had no job, 37.50% were illiterate, 33.55% had monthly income of Rs. < 10000/ pm, 69.08% unmarried, & 54.61% living in joint family system.

Conclusion: The prevalence of tobacco smoking is increasing and the key factors were young age, parental factors, exposure to second hand smoke at workplace, friends appreciating smoking, unemployment, being in an educational institute, low monthly income, separate family setup, and unmarried. Moreover, there was need of comprehensive anti-tobacco smoking campaigns and mass awareness to reduce the mortality and morbidity among the communities.

Keywords: Prevalence, Tobacco, Parents, stress, education, awareness

INTRODUCTION

Globally, tobacco smoking is a risk factor of many communicable and non-communicable diseases [1]. It kills one third to half of its users [2]. According to World Health Organization (WHO), 6.2 million deaths per year are attributed directly to smoking and this value is expected to rise in future. If proper measures are not taken, by 2030 the rate will rise to 8 million deaths per year, of which 80% will occur in developing countries [3]. It is reported by WHO that among the smokers worldwide the ratio of male is 47% and female is 12%. However, the percentage in developing countries varies from that of developed countries: 48% males and 7% females in developing countries whereas, 42% males and 24% females in developed countries are smokers [1].

Pakistan ranks 10th in overall tobacco producing countries [4] and this industry are continuously expanding 5% per annum [5]. A study conducted in 1990-1994 showed prevalence of 21.6% (36% males and 9% females) in people aged 15 and above [5]. The report given by WHO (2011) asserts the prevalence of active tobacco smokers to be 32.4% in males and 5.7% in females [2]. A study conducted in Karachi in the year 2002 reckoned 32.7% of the overall population to be tobacco smokers [6]. According to this study, the highest percentage was that of male college going students whose ages were between 21-25, which shows the prevalence of tobacco smoking to be higher in adults as compared to others. Further to this, a research was done in 2005, where the prevalence of smoking, exclusively focusing on adult population, was 13.7% [4]. Keeping in view the fluctuating results in adult population, a study was conducted in Peshawar among students of University of Peshawar showing the frequency of tobacco smoking was 15% [7].

Smoking is the risk factor of many diseases for instance coronary heart disease, peripheral vascular disease, cancers of mouth, throat, larynx, lungs, bladder and pulmonary emphysema [5]. Surprisingly, the non-smokers are prone to same hazards if exposed to second hand smoke but acute myocardial infarction and lung cancer are the most common risks in the passive smokers [8]. After being aware of the adverse effects of tobacco smoking, people continue to use tobacco all over the world. The environmental factors specified by the different researches include peer pressure, parental smoking [9, 10], sibling influence [10], uncle smoking [4], illiterate parents [1], non-working mothers [1, 9], low income [11, 12], social acceptability and marketing efforts [13], nuclear family setup [14] and governmental schooling [1, 4]. Whereas, the personal factors include self-confidence, relieving boredom, relaxation [15], old age, poor educational performance, availability to pocket money [16], spending leisure time outside home [4], illiteracy, being married and poor general health [5], adverse childhood experiences [17], mental illness [18] and nicotine dependence [19]

The tobacco smoking is highly prevalent in Pakistan and is causing many health issues. Each year large number of deaths are attributed to tobacco smoking for which immediate measures should be taken. Hence, the awareness programs for the cessation of smoking can be very effective in this respect. However, it is significant to find the determinants of smoking before designing any smoking cessation program. There has been plenty of research conducted on the federal, provincial as well as district level in Pakistan. However, looking at the drastic change in the prevalence and the changing factors of tobacco smoking (as mentioned above), there is a need to conduct a research in the present time. Thus this cross sectional study was

conducted to assess the prevalence, pattern and risk factors of tobacco smoking among male adult population of Hayatabad District Peshawar Khyber Pakhtunkhwa Pakistan.

METHODOLOGY

After taking ethical approval from the Institutional Ethical Approval Committee, a cross-sectional study was conducted from February 2021 to August 2021, in Hayatabad Peshawar Pakistan, in which out of seven phases two were randomly selected. A total of 385 male adults were included in the study based on 50% prevalence and 95% confidence interval. The non probability consecutive sampling technique was used to select the participants. Male adults of age more or equal to eighteen (18) years were included while those not permanent residents of Hayatabad were excluded. Those who gave informed written consent were included and were assured that their identity and personal information will not be disclosed and will solely be used for the purpose of study. A self structured questionnaire was used to collect data. The questionnaire comprised of questions relevant to the demographics including; name, age, address, contact number, occupation, marital status and their family setup. Moreover, questions on the educational status and monthly income of the respondents as well as of their parents. The status of current tobacco cigarette smoking, past cigarette smoking and number of cigarettes smoked per day was also inquired. In order to find out the factors responsible for smoking tobacco cigarettes, questions like parental smoking, sibling smoking, permission of smoking at home and second hand smoke at work place were asked. Moreover, the reasons for tobacco smoking were investigated. The point of view of respondents about the harmful effects of tobacco smoking was also inquired. After data collection, data was entered and analyzed by SPSS 23.0, finally data was presented in form of tables.

RESULTS

Table No. 1. Frequency of Tobacco Smoking Among the study participants (n=385)

Tobacco Smoking	Response	Frequency	Percentage
	Yes	152	39.48
	No	233	60.52

Table No. 2. Frequency of Demographics of the Study Participants (n=385)

Variable	Response	F (385)	Percentage	F(152)	Percentage
Age in years	< 30	249	64.68	109	71.71
	30 to 40	93	24.16	28	18.42
	40 to 50	29	7.53	11	7.24
	> 50	14	3.64	4	2.63
Occupation	No Job	85	22.08	32	21.05
	Govt	94	24.42	21	13.82
	Pvt	109	28.31	32	21.05
	Others	97	25.19	67	44.08
Educational status	Literate	279	72.47	95	62.50
	Illiterate	106	27.53	57	37.50
Monthly Income of Respondents	< 10000	123	31.95	51	33.55
	10 to 20000	142	36.88	49	32.24
	> 20 000	120	31.17	52	34.21
Marital Status	Married	163	42.34	47	30.92
	Unmarried	222	57.66	105	69.08
Parents Occupation	No Job	59	15.32	22	14.47
	Govt	91	23.64	35	23.03
	Pvt	124	32.21	51	33.55
	Others	111	28.83	44	28.95
Parents Educational Status	Literate	279	72.47	93	61.18
	Illiterate	106	27.53	59	38.82
Respondents Parents Monthly Income	< 10000	51	13.25	20	13.16
	10 to 20000	137	35.58	47	30.92
	> 20 000	197	51.17	85	55.92
Parents condition	Both alive	195	50.65	58	38.16
	Both dead	13	3.38	6	3.95
	Father alive	68	17.66	27	17.76
	Mother alive	109	28.31	61	40.13
Type of family setup	Joint	224	58.18	83	54.61
	Separate	161	41.82	69	45.39

Table No. 3. Tobacco Smoking Determinants among the Study Participants of Hayatabad Peshawar Pakistan (n=385)

Variables	Response	Frequency	Percentage	Frequency	Percentage
Using tobacco in any other form (385)	Yes	206	53.51	133	87.5
	No	179	46.49	19	12.5
If yes, in which form (206)	Snuff	162	78.64	91	93.81
	Tobacco pipes	19	9.22	3	3.09
	Chewing tobacco	8	3.88	2	2.06
	Cigar	17	8.25	1	1.03
Think smoking is harmful to health (385)	Yes	337	87.53	131	86.18
	No	48	12.47	21	13.82
Passive Tobacco Smoking at work place (385)	Yes	237	61.56	105	69.08
	No	148	38.44	47	30.92
If yes, who (237)	Parents	69	29.11	31	34.83
	Brothers	14	5.91	2	2.25
	Relatives	104	43.88	34	38.20
	Friends/ Colleagues	25	10.55	20	22.47
	Servant	25	10.55	2	2.25
Addicted to other drugs (385)	Friends	145		87	
	Yes	129	33.51	36	23.68
	No	256	66.49	116	76.32
If yes, to which one (129)	Chars	84	65.12	28	77.78
	Hashish	11	8.53	1	2.78
	Cocaine	3	2.33	0	0.00
	Alcohol	27	20.93	5	13.89
	Opium	4	3.10	2	5.56

Table No. 4. Tobacco Smoking Determinants among the Study Participants of Hayatabad Peshawar Pakistan (n=385)

Variables	Response	Frequency	Percentage
Past history of Tobacco Smoking (385)	Yes	97	25.19
	No	288	74.81
Number Of Cigarettes Smoked Per Day (152)	1 to 5	93	61.18

	6 to 10	33	21.71
	11 to 15	15	9.87
	16 to 20	8	5.26
	> 20	3	1.97
Places For Smoking (152)	At home	11	7.24
	Friend's place	84	55.26
	Public places	107	70.39
	At work	83	54.61
	Any other	41	26.97
Tried to quit smoking in past 12 months (152)	Yes	97	63.82
	No	55	36.18
Anti-Smoking Media Messages (385)	A lot	247	64.16
	Few	43	11.17
	None	95	24.68
Received help or advice regarding tobacco smoking (385)	Yes, from a professional	157	40.78
	Yes, from a friend	75	19.48
	Yes, from a family member	87	22.60
	No	66	17.14

Table No. 5. Reasons of Tobacco Smoking among the Participants of Hayatabad Peshawar Pakistan (n=385)

Reason for Tobacco Smoking	f	%age
Good taste	75	19.48
Habit	81	21.04
Relaxation	101	26.23
Concentration	47	12.21
Relief stress	93	24.16
Inspired by someone	14	3.64
Satisfaction	76	19.74
Relief craving	45	11.69
Get attraction	31	8.05
Impression	27	7.01
Look cool/ Smart	20	5.19
None of these	37	9.61

DISCUSSION

Result of this study shows that out of the sample population, 152 (39.48%) were current tobacco cigarette smokers and was less than studies conducted in District Peshawar, which showed 48.4% [20]. Moreover, our study results are more as compared to a study done in Karachi, which showed 32.7% [6] and another conducted in Peshawar University students which showed 27% prevalence status among the participants [21]. Furthermore, another study revealed the prevalence of tobacco use as 29.4% and thus our study results were more as compared this study [22] (Table No 1).

However, results of a study conducted in rural Sindh among male adults found a high prevalence of 55% of current tobacco cigarette smokers [23]. Many studies showed that prevalence of tobacco smoking more in Pakistan. In our study, the high prevalence of the tobacco smoking was found in 18-30 years of age group with majority being college or university students. This age range was considered the most susceptible for the indulgence of tobacco use. Similar results were reported by other studies as well, with 40% tobacco using population in the age group of 25-44 years [24] and in college going male students belonging to 21-25 years [6] (Table No 2).

Moreover, our study illustrated high prevalence of tobacco smoking in educated population as compared to the uneducated. On the contrary, a similar study reported high prevalence of smoking in uneducated population which suggests the difference between their and our study methodologies [25]. Furthermore, many studies conducted in colleges and universities showed higher frequency of tobacco smoking and thus suggested high prevalence among the educated communities as was reported by our study results [6, 7, 27]. According to our study results, 82.89% of the tobacco users were smoking 1-10 cigarettes and same findings were reported by many international studies [23, 26].

A study conducted in 2006, reported that tobacco smokers were more exposed to second hand smoke as compared to non-smokers which is evident from our study results showing 69.08% exposed and 30.92% not exposed (Table No 3). Moreover, many international studies revealed that due to tobacco smoking of siblings or/ and parents, the tobacco smoking prevalence was high [21, 28], as reported by our study results (Table No 3)

In our study, 86.18% of tobacco use replied that it harmful to health, and similar findings were reported a study conducted in 2012 in which 87.9% respondents agreed to the harmful

effects of smoking [25]. Due to the knowledge of harmful effects of tobacco smoking, 63.82% tried to quit this hazardous habit and around 83.86% had received advice from friends, family members and health professionals and only 17.14% received no help or advice regarding tobacco smoking [6, 28]. Moreover, in our study, 75.32% of participants received antismoking awareness and health education (Table No 4).

In our study, 53.51% of the smokers were also using tobacco in other forms, most popular of which was snuff followed by tobacco pipes, chewing & cigar, and was supported by many international studies [20, 25, 29]. Among the other drugs the most popular drug was chars after which alcohol, hashish and opium were used. Moreover, in a study conducted among the students of District Banu also confirmed the use of such drugs in our community [7].

In our study results, the tobacco smoking replied that the most common reasons for initiation of tobacco smoking was for relaxation, relief craving, satisfaction, better taste, and concentration etc (Table No 5).

CONCLUSIONS

From our study results, it was concluded that the prevalence of tobacco smoking was increasing and the important determinants of tobacco smoking were stress, parental smoking, sibling smoking, exposure to second hand smoke at workplace, friends appreciating smoking, unemployment, educational institute, monthly income, separate family setup, and unmarried etc. Moreover, the socio-economic determinants like parental education, parental monthly income, and parental current tobacco smoking were the variables showing significant relationship with tobacco smoking. Furthermore, most of the study participants smoked 1-5 cigarettes per day; most popular tobacco product used were cigarettes, followed by snuff, cigar, tobacco pipes and chewing tobacco. Addiction regarding the different forms of drugs showed that the most commonly used drug was chars. Moreover, we also assess the reasons of tobacco smoking starting and also assessed the tobacco smoking users regarding its hazardous health effects and ever tried to quit smoking.

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