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USE OF TOBACCO; EVALUATION OF FREQUENCY AND TREND IN USE OF TOBACCO; THE STUDY OF MEDICAL UNIVERSITY OF LARKANA.

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Mudassar Iqbal Arain⁶**

ABSTRACT... Objective: To evaluate the frequency and trend of tobacco use among the doctors of Medical University. **Study Design:** Cross-sectional survey. **Period:** 06 Months from Aug 2016 to Jan 2017. **Setting:** Medical College and Tertiary Care Hospital affiliated with Medical University of Larkana, Sindh, Pakistan. **Methods:** Collection of data through the modified questionnaire of IUATLD, on a total of 140 doctors of Medical University, Larkana. **Results:** A total of 140 respondents, 116 were male and 24 were females. Out of 116 males, 65 (56%) were smokers and out of 24 females, 04(16.66%) were smokers. Sixty four (45.7%) were current smokers, 5(3.6%) were ex-smokers and 71(50.7%) were non-smokers. Majority 37(26.4%) of smokers start smoking between the age of 21-30 years. Most frequent form of tobacco used is cigarettes. Non-smokers were affected by passive smoking in their environment. Majority of smokers use caffeinated drink with smoking cigarettes. 23(16.4%) smokers need proper guideline of smoking cessation plan. **Conclusion:** Mostly male doctors involved in smoking as compared to female doctors. Most of them lie in the moderate addiction index. There is a extreme need for special trainings in the educational institutes for both the students and teachers so that to make it smoke free zone.

Key words: Tobacco, Medical, Doctors, Larkana.

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INTRODUCTION

Smoking is one of the hallmark issues nowadays globally. People of every age group becomes addicted to smoking either by the peer pressure, relieve their anxiety or depression or by passive smoking. The tobacco contains many harmful chemicals that are injurious to active as well as passive smokers. These include hydrogen cyanide, carbon monoxide and ammonia. Some of them can cause cancer namely: acetaldehyde, aromatic amines, arsenic, benzene, benzopyrene, beryllium, 1,3-butadiene, cadmium, chromium, cumene, ethylene oxide, formaldehyde, nickel, polonium-210, polycyclic aromatic hydrocarbons, tobacco specific nitrosamines, vinyl chloride.¹⁻⁵ Many of the recent studies identified that smoking can cause many diseases such as coronary artery disease, lung cancer, urinary bladder cancer, chronic obstructive pulmonary disease, chronic bronchitis and emphysema,

diabetes, osteoporosis, rheumatoid arthritis, asthma, pneumonia, tuberculosis, heart stroke, ectopic pregnancy, peripheral vascular disease and neonatal mortality.⁶⁻⁸ Peer pressure, family attitudes, socio demographic factors, social influences, advertisements, movies, personality traits, people with low self-esteem, for the purpose of weight loss, easy availability, stress relief are some of the strong predictors of adolescent smoking⁹ and once the addiction of nicotine developed, the pharmacological properties of nicotine become victimize the addicted person.¹⁰

Cigarette smoking is one of the major causes of morbidity and mortality in developed and developing countries.¹¹ It is figure out that 7 million deaths will have to be expected annually from the use of tobacco in developing countries by 2030.¹² Unfortunately, the tobacco use in Pakistan rising miserably each year. According to survey, it was

explored that 54% men and 20 % women use tobacco in different forms.¹³

The most ironical fact is that the smoking ruins almost every profession even doctor are smoke more than the general public. Doctors working as teacher in a medical university can play a crucial role in decreasing the rate of smoking by counseling their students as well as patients effectively and help them to refrain from smoking by exposing all the health hazards related to smoking among their students and patients. But if a doctors themselves smoke, they are not been able to educate their students and patients regarding smoking cessation.¹⁴

The objective of this survey is to analyze the causes of smoking, observe the age of start smoking also identifying some factors that facilitates continuity for smoking and explore the frequency of the tobacco form used among the health care providers so that it could lead to recognize the pandemic due to its persistence.

MATERIAL AND METHODS

Study Design

Modified questionnaire base descriptive & cross sectional study.

Study Setting

The survey was conducted in medical college and tertiary care hospital affiliated with medical university of Larkana, Sindh, Pakistan

Study Duration

Data was collected from August 2016 to January 2017.

Study Subject

The questionnaire was distributed to 168 doctors of medical college and hospital and 140 responses were received back from participants. Identity of the doctors who participate in this study was kept confidential.

Data Collection

Data were collected by the modified questionnaire of International Union Against Tuberculosis and Lung Disease (IUATLD).¹⁵ Participants were

asked about their demographic social status, age of start smoking, type of tobacco used, quit smoking history, used of caffeinated drinks and also about their views for smoking cessation plan. All the information gathered on predesigned form and evaluated on SPSS Version 24.0

RESULTS

A total of 168 medical university teachers were asked to fill the modified questionnaire for the analysis of result in frequency table. Out of 168 questionnaire only 140 (83.33%) were received back. Out of which 116 (82.9%) were male teachers and 24 (17.1%) were female teachers. In 116 male, 65(56%) were smokers and 51(43.96%) were non-smokers and in 24 females, 04(16.66%) were smokers and 20 (83.33%) were non-smokers. Smoking rate found higher rate in males 65(56%) than in females 04 (16.66%).

	Fre- quency	Percent	Smokers		Non- Smokers	
Male	116	82.9	65	56	51	43.96
Female	24	17.1	04	16.66	20	83.33
Total	140	100.0	69	49.28	71	50.71

Table-I. Gender distribution (n=140)

Among 140 teachers, 71 (50.7%) were non-smokers, 05 (3.6%) were Ex-smokers and 64 (45.7%) were current smokers.

	Frequency	Percent
non smokers	71	50.7
ex-smokers	5	3.6
current smokers	64	45.7
Total	140	100.0

Table-II. Smoking status (n=140)

Most of the teachers who started smoking between the age of 21-30 years i.e. 37(26.4%) followed by 11-20 years i.e. 26 (18.6%) and few of them 06 (4.3%) started smoking in their age between 31-40 years.

	Frequency	Percent
11-20 yrs	26	18.6
21-30 yrs	37	26.4
31-40 yrs	6	4.3
Total	69	49.3

Table-III. Smoking starting age (n=69)

Majority of the tobacco form used among respondents was cigarettes i.e. 54 (38.6%). Others forms of tobacco were also used like chew tobacco along with cigarettes 12 (8.9%), cigar 1 (0.7%) and chew tobacco alone in 2 (1.4%) of the respondents.

	Frequency	Percent
Cigarette	54	38.6
chew/cigarettes	12	8.6
Cigar	1	0.7
Chew	2	1.4
Total	69	49.3

Table-IV. Tobacco form used (n=69)

We have calculated the heaviness of smoking index by the formula given in questionnaire of IUATLD and analyzed that majority of the doctors lies in the moderate addiction 34 (24.3%) followed by light addiction 27 (19.3%) and remaining came in heavy addiction category 06 (4.3%).

	Frequency	Percent
Light	27	19.3
Moderate	34	24.3
Heavy	6	4.3
Total	67	47.9

Table-V. Heaviness of smoking index (n=67)

When the ex-smokers were asked about their quit smoking history out of 5, 4 responses reported about their health issues like lung diseases including bronchitis and cough. The data were analyzed for the current smokers who are interested to quit smoking in upcoming month was 1 (0.7%), those who are planning to quit smoking in next 6 months were 5 (3.6%) and out of these, 2 of them tried to quit smoking before because of lung disease and developed allergies to surrounding peoples. Most of them 21(15%) would like to reduce the number of cigarettes as they smoke per day and majority of them 37 (26.4%) were very rigid about their decision that they never planning to quit smoking.

	Frequency	Percent
coming month	1	0.7
6 month	5	3.6
cut it back	21	15.0
no planning to quit	37	26.4
Total	64	45.7

Table-VI. Quit smoking history (n=64)

We have also evaluated the data for the both participants (smokers & non-smokers) who are affected by passive smoking from the surrounding people at their home, car, workplaces, friends and family members so the findings were that 63 (45%) smokers had the others smokers in their home, car, their family, friends and co-workers who were affected by passive smoking in their environment. Non smokers that were affected by passive smoking in their homes, cars, their workplaces, family and friends were 63 (45%) affected by passive smoking in their environment.

	Frequency	Percent
Smokers	63	45.0
non-smokers	63	45.0
Total	126	90.0

Table-VII. Exposure to passive smoking (n=126)

Smokers participants who use caffeinated drinks regularly in their diet like coffee, tea or cola along with cigarette smoking were 58 (41.4%) and non-smokers use caffeinated drinks were 54 (38.6%).

	Frequency	Percent
Smokers	58	41.4
non-smokers	54	38.6
Total	112	80.0

Table-VIII. Person use caffeinated drink (n=112)

Participants need proper guidelines that how to quit smoking by proper cessation plan for smoking under the supervision of quit smoking specialist or health care provider who give them valuable suggestion. So, smokers participants were 23 (16.4%) who need advice of specialist for smoking cessation plan and non-smokers were 02 (1.4%) who require the specialist.

	Frequency	Percent
Smokers	23	16.4
non-smokers	2	1.4
Total	25	17.9

Table-IX. Smoking cessation plan (n=25)

		Statistics								
		gender of the respondents	profile of smoking status	age groups	tobacco form used	heaviness of smoking index	quit smoking history	exposure to passive smoking	persons use caffeinated drink	smoking cessation plan
N	Valid	140	140	69	69	67	64	126	112	25
Mean		1.1714	1.9500	1.7101	1.2899	1.6866	3.4688	1.5000	1.4821	1.0800
Median		1.0000	1.0000	2.0000	1.0000	2.0000	4.0000	1.5000	1.0000	1.0000
Mode		1.00	1.00	2.00	1.00	2.00	4.00	1.00 ^a	1.00	1.00
Std. Deviation		0.37824	0.98423	0.62075	0.64401	0.63267	0.71200	0.50200	0.50193	0.27689
Minimum		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum		2.00	3.00	3.00	4.00	3.00	4.00	2.00	2.00	2.00

DISCUSSION

The study on smoking prevalence and their associated risk factors has been done in Karachi, Lahore and Abbottabad among the medical students of medical universities but no study has been found in the smoking trend and pattern among the doctors of a medical university of Larkana, who are the role model for their student and health care takers for the people of society.

According to the results of this study 56% were male smokers and 16.66% were female smokers that are much resembles with the recent study that 50.31% male doctors and 7.04% female doctors were involved in smoking.¹⁶ Other local study of Lahore revealed that 16.53% male and 2.38% female students of medical college were smokers.¹⁷

The smoking profile of doctors as per our findings indicated that 45.7% were current smokers and 3.6% were Ex- smokers that is much higher than the study on medical students of AKU Karachi in 2005 that 14.4% were current smokers and 3.3% were Ex-smokers.¹⁸

Our results showed that most of the doctors 26.4% started smoking between age of 21-30 years where as the study of smoking prevalence in medical students of Karachi indicated that the mean age of starting smoking was 17.9 (13-24 yrs).¹⁸ Another study of AKU Karachi in 2011 suggested that the 66% people started smoking in age 18-25 years.¹⁹

A high proportion of tobacco used in the form of cigarettes were found during this survey i.e.

38.6% that was less than the results of the study that showed 92.75% male and 50% female smoke cigarettes.²⁰

About 0.7% current smokers wanted to quit smoking in coming month and about 3.6% of smokers attempted to quit smoking in coming six months, compared to the study in Karachi that 13% of medical professionals attempted to quit smoking and 83% of respondents showed serious attempt made to quit smoking in last year.²¹ As other study indicated that 70% smokers wanted to quit but only 25% were succeeded to quit smoking permanently.²² As study conducted in Abbottabad showed that 56.95% students thought that they quit smoking.²³

Majority of the smokers 45.0% affected by their friends, family members and co-workers that not to quit smoking and 45.0% non smokers affected in their homes by passive smoking in their environment. This showed the worst condition that non-smokers affected by their family, friends and workplaces even than they do not smoke and could lead to same health hazards that a smokers could be. The same was indicated by the study in Abbottabad that 63.91% medical students inspired by their friends, 13.91% by media and 16.95% by family members to start smoking cigarettes²³, as compared that 98% respondents believed that active as well as passive smoking are injurious to health.¹⁸ Another Brazilian study showed that smoking could be promoted by the behaviors of smokers' family members, peer pressure, media could play important part through advertising the cigarettes, easy availability at market and low price of cigarettes. It also highlighted the other

factors such as anxiety, relieving from stress, weight control; decrease depression can make the smokers intention weak towards smoking cessation.²⁴

It was encouraging from our findings that 16.4% current smokers showed their intentions to quit smoking and need guidance for smoking cessation plan. One of the study suggested that proper awareness campaign of doctors and medical students to enhance their knowledge about smoking eradication from the society is very crucial.²⁵

CONCLUSION

Smoking is more common in male doctors rather than females. Majority of doctors comes in moderate addiction index. Less than half of the participants wanted to reduce the No. of cigarettes per day. More than half of non smokers affected by passive smoking. Majority of the smokers in spite of dsily cigarettes smoking use caffeinated drinks and most of the smokers want proper plan for smoking cessation by specialized smoking cessation counselor. There is a need of more interventional studies that will help to reduce the intake of tobacco in any form.

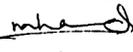
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2	Fahad Jibran Siyal	Data collection	
3	Abdullah Dayo	Overall checking	
4	Naheed Memon	English grammatical	
5	Muhammad Ali Ghoto	Analysis	
6	Mudassar Iqbal Arain	Re-arrngy & Analysis	