

Case Report

Cast Off Smoking Associated Headache: A Case Study of Medical Colleges of Karachi, Pakistan

¹Hadia Zulfiqar, ²Muhammad Zark, ³Hafiz Muhammad Rizwan Ali,
⁴Khurram Shahzad, ³Ussama Ashfaq,
⁵Nawab Sher and ⁵Rizwana Jabeen

¹Women Medical Officer, Basic Health Unit Khanuana District Jhang, Pakistan
² Medical officer, Basic Health Unit, Bhelpur, Gujrat, Pakistan.
³Medical Officer. RHC Sharaf, Vehari, Pakistan
⁴Hamdard University, Karachi, Pakistan
⁵Federal Urdu University, Karachi, Pakistan

ABSTRACT

Objective: The paper is aimed primarily to find out the frequency and regularity related to headache in the students of medical caused because of castoff smoking, furthermore it also was also aimed to observe the response of non-smoker medical students for passive smoking.

Methods: Variety of sections were studied in three different and private colleges. A total sample of 300 from three colleges of Karachi was observed back in 2014 in the month of June. The age limit defined for the study was limited from 18 years to 25 years. In the selected sample the students not addicted to smoking and do not smoke were studied exposed to castoff smoking more than one times in a day. The medical students were asked questions inquiring about their gender, age, duration of exposure to smoking and the interval that is frequency of exposure. Presence of headache to the response of castoff smoking observed by whom do not smoke was observed.

Result: A total of 186 students out of 290 notices and complained the issue under discussion and felt uneasy due to presence of smokers around them. This almost equals to the 64.1% of the total if we calculate it empirically. Out of those 186 almost a total of 172 belonged to medical students. This almost equals to 59% of the total. A total of 127 were exposed to smoking roughly more than two times a day. This equals 43% of the total affected students. Amongst 290 students 255 were of the opinion that smoking at any public place should be banned and accounted for. Smokers do response positively to the suggestion forwarded by the affected students.

Conclusion: It is evident that the problem persists and students feel headache directly related to castoff smoking. The counselling of the smokers in favor of not to smoke at the public place is suggested training them to avoid smoking at open public places. The law should also play its role in the observance of the said suggestion.

Keywords: Passive smoking, headache, castoff/secondhand smoking.

INTRODUCTION

The smoke in the air due to smoking is castoff smoking tobacco, often breathed in by the nonsmokers. Unintentionally inhaled environmental smoke released by the smokers through pipes, cigars and cigarettes in the closed environment causes passive smoking. We also name it environmental tobacco smoke, breathed in the shape of passive smoking by the non-smokers. This hazardous tobacco smoke in the air is dangerous for the public health, and indeed it the widespread. Many of us are exposed to the tobacco smoke released by the smokers in offices, homes, WorkCentre's, during travelling in the public transport and specially schools and colleges. Ischemic, lung cancer, asthma and heart diseases are directly and openly associated to the effects of passive smoking. 3 It is startling that 4000 chemicals dangerous for human are breathed out by the smokers while smoking. Among them more than 40 are capable to cause cancer. This practice is common and omnipresent. 93 % of the world population is still managing to live without any smoke free regulation for the safety of general public. Passive smoking roughly contributes in the problems related to public health as per a survey conducted in 2004 is as under:

- a) 40% 4 of children
- b) 33% of male non-smokers
- c) 35% of female non-smokers

These many of us are directly affected by the cancer of passive smoking over the globe. More than 600,000 deaths per year are caused just because of this menace over the world 4. Whereas, headache is complained by the common people living in the city of Karachi. This problem is not threatening to life but still a major issue to address. The persistence of headache direly disturbs the mood and routine activities of an individual. Beside other issues, passive smoking inhaled through environment data reveals that it causes headache especially in students that is youngsters 5, 6. Due to nonadherence to laws it is a burning issues of public places especially the college of Karachi. In Spain the same lines were followed and they reported the same effects of headache and other respiratory problems directly caused by passive smoking. Rozen et al. 7 in a survey opines about the United States of America (USA) that the severe problem of headache is evident in abundance to those children exposed to the cloud of smoke of tobacco. 8 Non-smokers students of medicine are lacking in the field of awareness in this regard, they need to be educated on the subject matter because prevention is better than cure. We need to research and share the results about the passive smoking to the directly affected people. Due to non-adherence of law and order the condition of smoking in public places in Pakistani Educational Institutions in particular and in Pakistan in general is worse. Law and required regulations are not sufficient and if they exist even then not implemented in true letter and spirit. People are in the habit of smoking in open, they even do not have curtsey for ladies, children and in certain cases people even do not care about the patient and age people. If a situation is there that someone feels allergic due to certain medical issues people often ignore them. If you forbade someone that not to smoke in public, chances are there that he will have a quarrel with you there and then. Resultantly, people suffer certain physical or mental short comings.

MATERIAL AND METHOD

This potential study involving multiple and versatile factors and dimensions in 2017 is purely conducted to probe the issues and reasons behind the falling health specially the issue of the headache in medical students of medical colleges of Karachi. The aggregate strength of the colleges was near about 2000 which formed our population of the research. This study in general was of observational nature and supervisory. The population of roughly 2000 students was reduced to an exact of 300. These 300 were our Spartans, they were our every corner of the overall population and it was 20% of a total of 2000 medical students of the colleges of Karachi. While research we observed three colleges in total and selected one hundred students from every college. The random sampling technique for the data collection was adopted to complete the research paper. The medical students of age group between 18 years to twenty-five years were chosen to complete the task in hand. These students were those who are directly affected by the passive smoking in the shape of tobacco smoke in their daily routine as non-smokers they were repeatedly fed by a constant amount of smoke of tobacco in the form of passive smoking at canteen, college, in ground or at any public place. We intestinally removed those students who had any symptoms of headache before a hand or they inherited it like head trauma, headache that was chronic in nature, or migraine. We endorsed that the private identification of any sort will not be revealed to any other person of their concern, the data is collected but the sample population is to share what they feel in a free environment. The purpose of the whole exercise is research based

only and nothing is personal with anybody in any respect. After well-versed conversation and permission questionnaire was distributed to the selected lot who fulfilled the criteria. The demographic date was mentioned in the given and drafted questionnaire. The framed questionnaire included such well framed and thought provoking questions which asked from the medical students if they sought any guidance and counselling from the related field experts in practical to abduct the habit of smoking in public place with the additional advice on the subject that this habit creates troubles for others, the non-smokers. The drafted questionnaire also artistically asked about the varying opinion of the student smokers, at least restricting themselves to smoke at the public place. The help was taken from the collected data after entering into SPSS software. The version we used for the data analysis was version 21.00. Age is a quantitative variable which is different for different students was denoted by ± S.D, in statistical and mathematical terminology it is known as mean, whereas, the qualitative information such as gender, the exposure to tobacco smoke persistently present into the air the regularity of headache, place, the response of the medical students was denoted by frequency and one hundredth form (percentage).

RESULT

Data was thoroughly and critically inspected and scrutinized. The response by the students was that much positive that 290 students filled up the questionnaire. The male were 102 in number a total of 35.2% of the total, male were 188 in number a total of 64.8% of the total. The age denoted by Mean was 22.4 \pm 1.28. In total the exposure at the medical institutions was 172 in percentage a total of 59% and 67 out of total, with a percentage of 23% were exposed to any public gathering place. Intensely, 51% that is a total of 51 were exposed on their own house in the premises of their own tobacco smoke. If we just consider the time factor, then 72% medical students a total of 208 were exposed for more than one hour a day. Whereas, a total of 144 to the same as 49.7% medical students' exposure to tobacco smoke was noticed only twice a day and

127 equaling exposure to passive smoking thrice a day and only 19 in percentage 6.5% once in a day. Rate of recurrence of headache if exposed to tobacco smoke was a total of 186 that equals 64.1% of the total students interviewed (Table 1.). Regarding the response of students, the study discovered that out of 290 only 90 that equals 31% of the total students practically counseled the people in the habit of smoking to avoid smoking at any community habitation. When students motivated the smokers for the good cause in a submissive mood, restricting them to avoid smoking in community, they received a hospitable gesture. In a total of 90 students were practically sought counseling. In further dissection of the problem out of those 90 almost 66 commented that smokers appeared to be agreed on the suggestion of not to smoke in public. It is a healthy figure that 73% of the total were agreeing to acknowledge. Out of 90 students 20 said that smokers are not listening to them and they are not convinced. They did not listen to the advice and tree are such cases who never commented and stayed silent their percentage is 5%, no response was recorded from them. Among them 255 that is 88% favored the restriction of smoking in the favor of nonsmokers, not to smoke at the public place, amongst them the reciprocal response was noticed by only 3% and the student who made no response were 9% in number (Table 2).

DISCUSSION

Variety of Cigarette symptoms and complications are received by a person whenever he is in the vicinity of tobacco smoke. The smokers not only risk their life but also pose a live threat to the others working in the nearby premises. Tobacco smoke contains Nicotine, and it is vasoconstrictor that is the narrowing of blood vessels resultantly which surges blood compression. The other factors include the increase and excessiveness of Carbon Monoxide which is less dense than air decreases the level of oxygen in the premises which leads to headache and related issues. It also adds to the other diseases like the cancer of lungs and multiple benign; not cancerous diseases 10 like cough and respiration problem, sneezing and dry throat etc.

in particular in the young population. 11 Considerable supportive evidence shows that castoff smoking leads to headache and effects the young, it is there for 11, 12 the selection of the medical colleges for the study of same purpose was conducted. The population of the study was purely based on the above said findings and recommendation about the cause of headache that the sample population should be covering all the areas. Experts are convinced that the castoff smoking is not only injurious to smoker but also the persons working nearby and in addition to that it also hampers the general population through the release tobacco smoke, increasing the carbon monoxide and lessening the ratio of the oxygen in the environment. The study of the same nature revolving around the young population such as at the age of 22 years have not been conducted before this research paper on the same topic probing the issues caused by the castoff smoking. The study produced statistics such as a total of 64% of the total students of the population were facing the side effects of the tobacco smoke released in the air and damaged the health of those who even do not smoke. On the same line, Gedikondele et al. in another study the same number of effected students was 54%. Hammad 11 et al. observed that the incidence of the same health issue persistent in the students was 68% of the total population. Stosic et al. observed the incidence to be 1256%. This ratio of being affected is greater than other place when compared to colleges of the Karachi. It directly refers to the general non-adherence to the regulations by the students and non-seriousness of the management of the institutions in this regard. It affects the over-all enactment of the students if they are in such situation for more than 1 hour. Because breathing in and breathing out is a general and ongoing phenomenon that continues and continues and with every breath you take the untasteful ans unhealthy recipe with added ingredients of nicotine added with carbon monoxide into your lungs and that is also transferred to your head in one way or the other resulting in the form of headache. Interesting responses received by the student of the colleges of Karachi are as under:

Step Taken	Percentage
Students agreed that smoking at	
public places should be	88%
prohibited	
Students took any active step to	31%
council the smokers	

Other studies conducted in Riyadh, Saudi Arabia reflected an increased level of general awareness on the issue of castoff smoking and in United Kingdom if students do not obey the regulations that may face termination from the college. Proper guidance and realization of the severity of the castoff smoking to the non-smokers students available in the premises. The appropriate level of changes in the syllabi and curriculum may also add to the realization and general awareness. Guest lectures and distribution of the related literature may be distributed to do the needful. This will add in the preventive measures taken for the eradication of the menace. The enforcement of law and regulations interestingly developed a situation in which quitting of smoking at public place responses were positive. After being counseled the students were ready enough to cooperate and smoke their cigarettes in a place where it is less dangerous and no other is in the hunt of passive smoking. The developing attitude was sufficient enough to support the cause and to act as whistle blower in an aroused situation. The sharing of positive literature in the support of not to smoke at public place given deep rooted better result. If someone without the fear of being punished quits to smoke in public, then the intrinsic motivation and counselling session are at work silently. Chuang et al. In his attempt to narrate the deep rooted effect of counseling and anti-smoking enforcement of the regulations, receives the positive response of counseling. 15 Many other research studies outcome reflects its practical approach to curb passive smoking at the public place. 16, 17 we aimed in order to complete our study at limited population due to multiple reasons like resources and time to mention. In which we successfully focused and highlighted the arising issue of headache in the students due to castoff smoking. In future there is chance that studies may counter the discussion of the complications faces due to castoff smoking or

the second hand smoking, further more with an additional and enhance highlight on the implementation of the regulations that discourage the passive smoking.

CONCLUSION

It is very much evident from the research conducted on the topic of castoff smoking that risks are high in the shade of tobacco smoke released by smoker to the medical students of the Medical college of Karachi. Tutorials, guest lectures, motivational speeches and training sessions may add to the awareness of the said issue to benefit the poor student suffering because of the problem created by someone else. Pragmatic approach in the implementation of the writ of the regulations in this regard is highly solicited and demanded.

ACKNOWLEDGEMENT

I thank to from the bottom of my heart to the students of of medical colleges that they wilfully supported the cause and also thankful to Department of Community Medicine, Jinnah Medical and Dental College. They extended their best and supreme concern in the collection of this valuable data and its analysis that can safeguard the lives of many.

Conflict of interest

I as author, declare that, in real neither have any personal or private interest nor any organization sponsored me.

REFERENCES

- Cardenas VM, Thun MJ, Austin H, Lally CA, ClarkWS, Greenberg RS, et al. Environmental tobacco smoke and lung cancer mortality in the American Cancer Society's Cancer Prevention Study. II. Cancer Causes Control 1997;8:57-64.
- Zaridze D, Maximovitch D, Zemlyanaya G, AitakovZN, Boffetta P. Exposure to environmental tobacco smoke and risk of lung cancer in non-smoking women from Moscow, Russia. Int J Cancer 1998;75:335-8.
- 3. Stosic L, Milutinovic S, Lazarevic K, Blagojevic L,Tadic L. Household

environmental tobacco smoke and respiratory diseases among children in Nis(Serbia). Cent Eur J Public Health 2012;20:29-32.

- 4. Second-hand smoke [Internet]. Global Health Observatory (GHO) data, WHO passive smoking www.who.int/gho/phe/secondhand_smoke/e n/data.Available from: http://www.who.int/gho/phe/secondhand_s moke/en/.
- Arruda MA, Guidetti V, Galli F, Albuquerque RC,Bigal ME. Prenatal exposure to tobacco and alcohol are associated with chronic daily headaches at childhood: A population - based study. Arq Neuropsiquiatr 2011;69:27-33
- Bush D, Goniewicz ML. A pilot study on nicotine residues in houses of electronic cigarette users, tobacco smokers, and nonusers of nicotine-containing products. Int J Drug Policy 2015; 26:609-11.
- Marco Tejero A, Pérez Trullén A, Córdoba GarcíaR, García Sánchez N, Cabañas Bravo MJ. [Exposure to environmental tobacco smoke at home increases the need for medical attention for respiratory diseases in childhood]. A Pediatr (Barc) 2007; 66:475-80.
- 8. Rozen TD. Cluster headache as the result of sec-ond hand cigarette smoke exposure during childhood. Headache 2010;50:130-2.
- Polosa R, Caponnetto P, Maglia M, Morjaria JB,Russo C. Success rates with nicotine personal
- Vaporizers: a prospective 6-month pilot study of smokers not intending to quit. BMC Public Health2014;14:1159.
- 11. Lounsbery MG, Bubak ME. The impact of secondhand smoke on children: respiratory and othermedical concerns. S D Med 2009
- 12. GedikondeleJS, Longo-Mbenza B, Nzanza J M Luila EL, Reddy P, Buso D. Nose and throat complications associated with passive smoking among Congolese school children. Afr Health Sci2011;11:315-9.
- 13. Hammad M, Atta K, Manzoor M, Tariq M, Saeed Z,Masood Z, et al. Association of passive smoking with respiratory symptoms

and clinical correlates, among married women, in a rural community in Islamabad. J Pak Med Assoc 2010; 60:601-4.

- Almutairi KM. Prevalence of tobacco use and exposure environmental tobacco smoke among Saudi medical students in Riyadh, Saudi Arabia. J Community Health 2014; 39:668-73
- Raupach T, Al-Harbi G, McNeill A, Bobak A, McEwen A. Smoking cessation education and training in U.K. medical schools: a national sur-vey. Nicotine Tob Res 2015; 17:372-5.
- Chuang SH, Huang SL. Changes in smoking behavior among college students following implementation of a strict campus smoking policy in Taiwan. Int J Public Health 2012; 57:199-205.
- 17. Liu R. L., Yang Y., Liu XR, Chang A. L., Gong J, Zhao B.F. Knowledge and attitudes towards second hand smoking among hospitality patron age in five cities in China]. Zhonghua Liu Xing BingXueZaZhi. 2008;29:421-5.
- Slama K, Chiang CY, Enarson DA. Helping patients to stop smoking. Int J Tuberc Lung Dis2007; 11:733-8.