# Socioeconomic Level and Young Medical Smokers; A Reaction to Peer Pressure

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#### **ABSTRACT**

The purpose of this study was to assess the smoking behaviour of medical students and its association with socioeconomic status. It also evaluates the role of peer pressure in the initiation of smoking behaviour. A descriptive cross-sectional study was conducted, and 800 students participated from different medical colleges of Peshawar. Study duration was from January 2019-March 2020. The respondents filled a questionnaire which was developed to assess the smoking behaviour, peer pressure and association of smoking with the socioeconomic status of the medical students. The results were significant. Out of 800 medical students, 500 were smokers. Peer pressure was the leading cause of smoking behaviour and prevails in the middle socioeconomic status (SES) of the students. Similarly, the middle and high SES medical students were heavy smokers in comparison to low SES students. The students were agreed to quit smoking, but they perceived no support. There are a significantly increased number of medical students involved in smoking behaviour. Should be rehabilitation programs for the students. The authorities should provide support to the students who are tempted to quit smoking.

#### **Keywords**

Smoking, Peer Pressure, Medical, Students, Socioeconomic Status

## Introduction

Smoking is a leading public health problem that results in undefined causes of mortality and morbidity. Three million people die every year from diseases related to smoking, which can be rise to 10 million in 2030 (Bilgiç & Günay, 2018). The influence of peer pressure, easy excess to tobacco-composed elements, smoking advertorial and cost plan in a cigar, cigarette, narghile on teenager starting to smoke is an important issue. Trofor et al reported 52.4% of undergraduates smoked frequently and it can be improved through behavior modification and by changing their al., 2010). attitude (Trofor et Canadian Community Health Survey (CCHS) estimated that 16% of the community of Canada were mainly 12 years old children who smoked (Hersi et al., 2019). Worldwide studies revealed that lower levels of education, income and mental health issues in the population were resulting in a higher rate of smoking, leading to lower quality of life (Hughes, 2003). Yearly, 2% of the population discontinue smoking for good and 40% of the population tries to discontinue smoking, whereas 4%-6% are successful (Nishi et al., 2019)

In medical students, smoking has been reported to be in high prevalence. A study conducted in Riyadh found that 29% of students were smokers and similarly in another study conducted in Abha found the prevalence to be 13.6% of medical students (Albangy et al., 2019). Peer pressure has a critical role in the smoking behaviour of young adults.6 Young people connect with various groups of people and are exposed to a variety of different behavioral models. Furthermore, research has shown that peer pressure is a stronger influence to start smoking (Mpousiou et al., 2018). Although students at medical institutes know the effects of smoking on health but easy access to smoking-related products, peer pressure, tobacco commercials and price policies influence the adolescent's initiation of smoking (Zeng et al., 2020). Amongst medical students' prevalence of smoking in Australia and the USA (2013), was 3 per cent whereas, a study in Japan in 2010 reported much higher rates and the prevalence was up to 58 per cent (Alzahrani et al., 2021). In Pakistan prevalence of smoking is high, 100,000 people are affected yearly by smoking (Khubaib et al., 2016).

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Currently, very few smokers (24.7%) attempt to quit in Pakistan with a low success rate which is 2.6%, whereas, in other countries, 40%-50% of users try to quit yearly (Shaheen et al., 2018). An international survey highlighted that citizen of other countries have a greater success rate of quitting smoking than Pakistan (Ali et al., 2021). Smoking cessation in middle-income countries is minimum like in Pakistan, poor healthcare systems, low awareness about health hazards of smoking among the public, no smoking cessation policies and tobacco industry marketing strategies (Al-Haqwi et al., 2010). Several types of research have concluded that drug misuse also has a strong influence on one's self-esteem and academics (Zangmo et al., 2021). Most drugs affect the decision-making process of students, their creative thinking and the development of necessary life and social skills (Abu-elenin et al., 2017). This in turn affects a student's concentration leading to increased absenteeism and dropouts. Drugs also interfere with an individual's awareness of their unique potential and thus their interest in their career development fails (Joseph et al., 2018).

Therefore, keeping all this information, the rationale of the study was to figure out the smoking behavior among the medical students and their association with the socioeconomic status and to implement the programs for better health outcomes of the medical students.

# Methodology

This study was carried out in different medical colleges of Peshawar. A simple random sampling technique was used and a total of 800 students participated in the study. Both male and female students and all years of professionals were included in this study. A questionnaire was designed to assess smoking behaviour among medical students and its association with socioeconomic status. The questionnaire had close-ended questions. A pilot study conducted on 10 per cent of the population. Ethical approval was taken from Board of Ethics, Gandhara University. SPSS 26 was used for the analysis of the data. The descriptive and inferential analysis was performed.

# Result

Table 1: Demographics of the participants

Demographics f (9					
Age	>22 years	250			
		(31.25)			
	22-26 years	550			
		(68.75)			
Gender	Male	650			
		(81.25)			
	Female	150			
		(18.75)			
Socioeconomic	Low	91 (11.4)			
status	Middle	490			
		(61.3)			
	High	219			
		(27.4)			
Smokers	Yes	500			
		(62.5)			
	No	300			
		(37.5)			

Table 2: It shows the reasons of students smoking

		how did you start smoking?				Ch i-	P-
		Pe	Dist	M	Ot	Sq	va Iu
		er	urbe	edi	he	ua	e
		Pre	d	cal	r	re	
		ssu	Rela	stu	Str		
		re	tion	die	ess		
			ship	S	ors		
Socio	-	36	25	03	-		
econ	0	(56	(39.	(4		55	<
omic	w	.2)	1)	.7		.0	0
Statu				)		7	
S	m	16	50	25	72		0
	i	2	(16.	(8	(2		0
	d	(52	2)	.1	3.3		1
	d	.4)		)	)		
	ı						
	е						
	h	91	11	14	11		
	i	(71	(8.7)	(1	(8.		
	g	.7)		1.0	7)		
T. 1.1. 2	h	1.	.4	)		•	

Table 3: It indicates the intensity of cigarette smoking

		How many cigarettes do you smoke per day?  5- 1 2 les 10 p pa s ac ck tha				C h i- s q u	P - v a I
			k		n 5	a r	е
						e	
Socio	ı	31	-	-	33		
econ	0	(4			(51.	7	<
omic	w	8.			6)	1.	0
statu		4)				1	
S	m	16	39	53	55	4	0
	i	2	(1	(1	(17.		0
	d	(52	2.	7.	8)		1
	d	.4)	6)	2)			
1							
	е	60	2		22		
	h i	69 /F	2	-	33		
		(5 4	5 /1		(26.		
	g h	4.	(1 9.		0)		
	11	3)					
			7)				

Table 4: It represents the participants perception about the available support

		wha avai when qui fa mi	C hi - sq u ar e	P · v a l u e		
Socio econo mic	lo w	25 (39.1)	11 (17.2)	28 (43. 8)	84. 34	<0 .0
Status	m id dl e	11 (3.6)	26 (8.4)	272 (88. 0)		01
	hi	14	11	102		

g	(11.0)	(8.7)	(80.	
h			3)	

Table 5: It shows the frequency of smoking cessation

		Would to smo	C hi	P- v al	
		Yes	No	sq	u
				u	е
				ar	
				е	
Socio	lo	36 28			
econo	W	(56.2)	(43.8)	19	<
mic	mi	139	170	.8	0.
status	ddl	(45.0)	(55.0)	58	0
	е				0
	hig	33 94			1
	h	(26.0)			

## **Discussions**

Socioeconomic factors have an important role to play in the cessation of smoking. Smoking is often more prevalent among those with lower socioeconomic status (SES) and is a leading contributor to socioeconomic disparities mortality and health in European countries and the United States (Nargis et al., 2019). In this study we found that most of the participants (55.33%) had peer pressure during the quitting process. These findings are supported by several studies. One study showed that responses to peer cues play a very important role in the behaviour of smokers. The reaction of current smokers is more reactive to peer and psychological cues when compared to former smokers (Saravanan et al., 2020). Moreover, as students enter university, they start a new life away from their families in a different and strange environment which can contribute to their behaviour or involvement in substance abuse like cigarette smoking (Kazemi et al., 2017) Evidence also supports that as the level of education increase, the proportion of smoking increases which might indicate its relation to stress. Quitting would generally be significantly higher among the higher-educated and higher-SES strata. Because higher-SES people are more sensitive to the dissemination of knowledge and

more aware of the health harms of smoking SES (Wang et al., 2018). Socioeconomic inequalities in smoking can be driven by disparities in both initiation and cessation of smoking across different SES. There may be several reasons to expect that smokers with lower SES may be less successful in quitting. They include reduced support for quitting, low motivation to quit, stronger addiction to tobacco, psychological differences, increased likelihood of not finishing courses of pharmacotherapy and behavioral support, and influence of targeted marketing by tobacco companies. Twyman and colleagues also identified multiple perceived barriers to smoking cessation in vulnerable groups that include—(i) individual and lifestyle factors; (ii) social and community factors; (iii) living conditions; and (iv) cultural, socio-economic, and environmental factors (Twyman, 2015). Smoking cessation low-SES smokers might among also undermined by the need for nicotine to suppress appetite and manage hunger (Chamberlain et al., 2017). Similarly, successful quitting is associated with higher SES in Vietnam (Nguyen et al., 2012), China (Wang et al., 2018) and India (Singh et al., 2019). Tobacco use alone is responsible for 50 to 65% of the difference in mortality rates based on socioeconomic status (Hiscock et al., 2015). This is because smoking rates are higher among those with lower SES in most developed countries and also in many low- and middle-income countries (Vickers, 2020). Therefore, to improve the chances of current smokers successfully stopping, we need to increase our understanding of why low smokers find stopping smoking more difficult and use this to inform policies and interventions. A recent review concludes that some disadvantaged smokers have more stressful lives due to material hardship, psychological differences and greater dependence on tobacco coupled with less motivation to quit (even when they have embarked on a quit attempt) and a higher rate of smoking among family and friends (or less social capital related to smoking) (Vickers, 2020).

## **Conclusion**

Peer pressure plays significant role in the initiation of the smoking. Most of the students are heavy smokers. There should be some support for the students who want to quit smoking. However,

peer pressure during the process of quitting the habit needs to be considered during behavioral therapy and pharmacotherapy.

### References

- [1] Bilgiç, N., & Günay, T. (2018). Evaluation of effectiveness of peer education on smoking behavior among high school students. Saudi Medical Journal, 39(1), 74–80.
- [2] Trofor, A., Mihaicuta, S., Man, M. A., Miron, R., Esanu, V., & Trofor, L. (2010). Approaching tobacco dependence in youngsters: impact of an interactive smoking cessation program in a population of Romanian adolescents. Journal of Clinical and Experimental Investigations, 1(3), 150–155.
- [3] Hersi, M., Traversy, G., Thombs, B. D., Beck, A., Skidmore, B., Groulx, S., Lang, E., Reynolds, D. L., Wilson, B., Bernstein, S. L., Selby, P., Johnson-Obaseki, S., Manuel, D., Pakhale, S., Presseau, J., Courage, S., Hutton, B., Shea, B. J., Welch, V., ... Stevens, A. (2019). Effectiveness of stop smoking interventions among adults: protocol for an overview of systematic reviews and an updated systematic review. Systematic Reviews, 8(1), 28.
- [4] Hughes, J. R. (2003). Motivating and helping smokers to stop smoking. Journal of General Internal Medicine, 18(12), 1053–1057.
- [5] Nishi, S. K., Jessri, M., & L'Abbé, M. (2018). Assessing the dietary habits of Canadians by eating location and occasion: Findings from the Canadian community health survey, cycle 2.2. Nutrients, 10(6).

https://doi.org/10.3390/nu10060682

- [6] Albangy, F. H., Mohamed, A. E., & Hammad, S. M. (2019). Prevalence of smoking among male secondary school students in Arar City, Saudi Arabia. The Pan African Medical Journal, 32, 156.
- [7] Mpousiou, D., Lamprou, D., Toumpis, M., Andritsou, M., Karathanasi, A., Fouskakis, D., Katsaounou, T., Zervas, E., & Katsaounou, P. (2018). The influence of peer smoking in smoking behaviour of adolescents. Tobacco, Smoking Control and Health Education.
- [8] Zeng, L.-N., Zong, Q.-Q., Zhang, J.-W., An, F.-R., Xiang, Y.-F., Ng, C. H., Ungvari, G. S., Yang, F.-Y., Yan, H., Chen, L.-G., Hu, X., & Xiang, Y.-T. (2020). Prevalence of smoking in nursing students worldwide: A meta-analysis of

- observational studies. Nurse Education Today, 84(104205), 104205.
- [9] Alzahrani, H. A., Alghamdi, M. S., Alzahrani, A. A., & Alzahrani, A. A. (2021). Tobacco smoking and depressive symptoms among male medical students in Al-Baha University. Journal of Family Medicine and Primary Care, 10(6), 2235–2240.
- [10] Khubaib, M. U., Shahid, Z. Y., Lodhi, S. K., Malik, H., & Jan, M. M. (2016). Prevalence and associated factors of smoking among final year medical students: A multicentric survey from Pakistan. Cureus, 8(7), e701.
- Shaheen, K., Oyebode, O., & Masud, H. (2018). Experiences of young smokers in quitting cities smoking in twin of Pakistan: phenomenological study. BMC Public Health, 18(1). https://doi.org/10.1186/s12889-018-5388-7 Ali, K., Yaseen, M. R., Makhdum, M. S. [12] A., Quddoos, A., & Sardar, A. (2021). Socioeconomic determinants of primary school children dropout: a case study of Pakistan. International Journal of Educational Management, ahead-of-print(ahead-of-print).
- https://doi.org/10.1108/ijem-04-2021-0144
- [13] Al-Haqwi, A. I., Tamim, H., & Asery, A. (2010). Knowledge, attitude and practice of tobacco smoking by medical students in Riyadh, Saudi Arabia. Annals of thoracic medicine, 5(3), 145.
- [14] Zangmo, S., Pem, U., Choden, K., & Yangzom, D. (2021). The impact of academic performance on self-esteem among the female students studying in different colleges under Royal University of Bhutan. Journal of Humanities and Education Development, 3(3), 176–182.
- [15] Abu-elenin, M. M., Omar Atalla, A. A., & El-Salamy, R. (2017). Cigarette smoking among medical students and some associated risk factors. Tanta Medical Journal, 45(4), 206.
- [16] Joseph, A. M., Rothman, A. J., Almirall, D., Begnaud, A., Chiles, C., Cinciripini, P. M., Fu, S. S., Graham, A. L., Lindgren, B. R., Melzer, A. C., Ostroff, J. S., Seaman, E. L., Taylor, K. L., Toll, B. A., Zeliadt, S. B., & Vock, D. M. (2018). Lung Cancer Screening and Smoking Cessation clinical trials. SCALE (Smoking Cessation within the context of Lung Cancer Screening)

- collaboration. American Journal of Respiratory and Critical Care Medicine, 197(2), 172–182.
- [17] Nargis, N., Yong, H.-H., Driezen, P., Mbulo, L., Zhao, L., Fong, G. T., Thompson, M. E., Borland, R., Palipudi, K. M., Giovino, G. A., Thrasher, J. F., & Siahpush, M. (2019). Socioeconomic patterns of smoking cessation behavior in low and middle-income countries: Emerging evidence from the Global Adult Tobacco Surveys and International Tobacco Control Surveys. PloS One, 14(9), e0220223.
- [18] Saravanan, K., Balsubramaniam, A., & MP, S. K. ASSOCIATION BETWEEN PEER PRESSURE AND RELAPSE DURING TOBACCO QUIT PROCESS. European Journal of Molecular & Clinical Medicine, 7(01), 2020.
- [19] Kazemi, D. M., Borsari, B., Levine, M. J., Li, S., Lamberson, K. A., & Matta, L. A. (2017). A systematic review of the mHealth interventions to prevent alcohol and substance abuse. Journal of Health Communication, 22(5), 413–432.
- [20] Wang, Q., Shen, J. J., Sotero, M., Li, C. A., & Hou, Z. (2018). Income, occupation and education: Are they related to smoking behaviors in China? PloS One, 13(2), e0192571.
- [21] Twyman, L. H. (2015). Multiple and severe forms of socioeconomic disadvantage and tobacco use: exploring the factors that contribute to smoking amongst clients of community service organisations (Doctoral dissertation, University of Newcastle).
- [22] Chamberlain, C., O'Mara-Eves, A., Porter, J., Coleman, T., Perlen, S. M., Thomas, J., & McKenzie, J. E. (2017). Psychosocial interventions for supporting women to stop smoking in pregnancy. Cochrane Database of Systematic Reviews, 2, CD001055.
- [23] Nguyen, L. T., Rahman, Z., Emerson, M. R., Nguyen, M. H., & Zabin, L. S. (2012). Cigarette smoking and drinking behavior of migrant adolescents and young adults in Hanoi, Vietnam. The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine, 50(3 Suppl), S61-7.
- [24] Singh, L., Goel, R., Rai, R. K., & Singh, P. K. (2019). Socioeconomic inequality in functional deficiencies and chronic diseases among older Indian adults: a sex-stratified cross-sectional decomposition analysis. BMJ Open, 9(2), e022787.

- [25] Hiscock, R., Dobbie, F., & Bauld, L. (2015). Smoking cessation and socioeconomic status: An update of existing evidence from a national evaluation of English stop smoking services. BioMed Research International, 2015, 274056.
- [26] Vickers, S. I. M. (2020). Smoking enclaves: A mixed-methods study of social contextual influences on smoking among New Zealanders with mental illness. University of Otago.