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SMOKING;
FREQUENCY AND ASSOCIATED FACTORS IN FEMALE MEDICAL STUDENTS

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ABSTRACT: To observe the frequency of smoking in female medical students and to determine the associated factors. **Study Design:** Cross-sectional survey. **Setting:** Data was collected through a self-administered questionnaire from female students at Rawal Institute of Health Sciences. **Period:** February 2015 to August 2015. **Methods:** Information about demographic characteristics, smoking status in family members, number of cigarettes smoked per day, influence for starting smoking and use of sheesha and hash was obtained. **Results:** A total of 100 female students were asked to fill the questionnaires. Response rate was 60%, out of which, 52.6 % (31/60) were smokers and 48.4% were non-smokers.6 out of 31 were hash smokers and 20 out of 60 were cigarette smokers, remaining were sheesha smokers. Majority of these females started smoking after 18 years of age, with greatest influence being life style and peer pressure. Our results show substantial trend of smoking in female medical students. Majority have smokers in their families but their families were not aware of their smoking habit. Even though almost everyone was aware of the associated risks, 24% never tried to quit. Most of the students spent Rs 1500 to 3000 per month on smoking.

Key words: Frequency, Smoking, Associated factors.

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INTRODUCTION

An act of inhaling and exhaling the fumes from burning tobacco in cigars, cigarettes and pipes is referred as “Active Smoking”[1] Most of the people start smoking due to peer pressure, to relieve stress and anxiety, and under parental influence. Each cigarette contains nicotine and tar. Nicotine being the active ingredient is inhaled into the lungs, where most of it stays, the rest passes into the blood stream reaching the brain in about 10 seconds and dispersing throughout the body in 20 seconds. Studies have shown the smoke can stay for up to 2.5 hours even when the windows are open.[2] Passive smoking is involuntary exposure to tobacco smoke. The secondhand smoke inhaled by passive smokers, is a mixture of smoke exhaled by smoker which is directly released from smouldering tobacco. So passive smoking is more or less equally harmful to the people who don’t even smoke.[3] Smoking related diseases have been found to kill approximately 6 million people worldwide each year. It is the leading cause of preventable morbidity and mortality. According to World Health Organization, smoking is being practiced by 1.3 million people globally. Among them, 80% people live in developing or underdeveloped countries.[4]

Research has shown that the difference in life expectancy between smokers and non-smokers is 6.5 year. On average, smoking one cigarette reduces life by 7 to 11 minutes. Individuals who smoke cigarettes are more likely to die of lung cancer, coronary heart diseases, stroke and chronic obstructive lung disease. These days’ products other than cigarettes, pipes cigars, bidis, hookas and sheeshas are also smoked by many people. Pakistan has highest consumption of tobacco in South Asia. According to Pakistan Demographic Health Survey, 46% men & 5.7 % women smoke tobacco. Approximately, 1200 children start smoking every day.[5]

Pakistan had spent Rs. 250 billion over 64 billion cigarettes in financial year 2014, disclosed by State

Bank report recently. The most popular cigarette brand in Pakistan is Gold Leaf which is available for Rs.100, each pack contain 20 cigarettes. Dr. Javed Khan, Head of Chest Medicine, Agha Khan University Hospital said, 100,000 deaths occur in Pakistan annually because of tobacco smoking.[6]

A research was conducted by Aijaz Aslam[7] to determine the prevalence and patterns of smoking among Pakistani women, in urban and rural Pakistan (1992-1994). According to this research, in Pakistan, 21.6% out of 9441 subjects were smokers, out of which 9% were females and 36% were males.

Another cross sectional survey was conducted by Nighat Nisar[8] of Faculty Health Management Baqai Medical University to determine the pattern of tobacco consumption among adult women of low socio economic community Karachi, Pakistan. In this research, 52% of the women were consuming tobacco and Use of Hukka was more prevalent in women of low socio-economic status.

In research conducted by Azhar and Al-Sayed[1] on prevalence of smoking among female medical students in Saudi Arabia, it was concluded that prevalence of smoking is more common in non-medical students because medical students have more awareness, better level of education and increase knowledge of risk to health associated with smoking.

Another cross sectional research by Hamza M. Abdul-Ghani, Ahmed Al-Rasheedi and Farah Ahmed[2] from Saudi Council, was done on prevalence of smoking and habit of smoking among the Saudi Female students. According to this research, choice of tobacco was 4.3% and 5.6% for cigarette and water pipe respectively, whereas 3.9% of the participants were ex-smokers.

Our study was conducted to find frequency of smoking among female medical students of Rawal Institute of Health Sciences, Islamabad.

Ethical Considerations

The study was approved by the Ethical Committee of Rawal Institute of Health Sciences, Islamabad. Personal assurance was given to the study population that the confidentiality of the information will be maintained.

Type of Study

A cross sectional descriptive study through a structured questionnaire was carried out to find out the frequency of smoking among female medical students at Rawal Institute of Health Sciences.

An effort was also made to find out the factors associated with urge of students towards smoking.

Tools of Study

a. A structured close-ended questionnaire.
b. The questionnaire (self-administered) was filled by the study participants.

Objectives

a. To study the frequency of smoking in female medical students of Rawal Institute of Health Sciences, Islamabad.
b. To determine the associated factors.

Importance of the Study

a. Assessing the frequency of smoking in female medical students and its associated factors among female medical students.
b. Assessing the level of awareness among people about the hazards of smoking.
c. It will serve as an instrument to find out the new ways and means to create awareness about hazards of smoking among smokers and general public

METHODS

Setting / place of study

This study was conducted among female medical students of Rawal Institute of Health Sciences.

Duration of Study

The research project was started on February 2015 by submitting a proposal to the Research Committee and the project was completed by August 31st, 2015.

Study Design
A cross sectional, descriptive study through a structured, close ended questionnaire was carried out to find out the frequency of smoking in female medical students. The questionnaire was filled by the study participants at Rawal Institute of Health Sciences.

Population
The study population comprised of female medical students of Rawal Institute of Health Sciences, Islamabad

Sample Size
Sample size was of 100 female medical students.

Type of Sampling
We took a sample of 100 students from MBBS and BDS through convenient sampling.

Data collection process / Survey tools
A structured, close-ended, self-administered questionnaire was used for data collection.

Statistical analysis/tables
The data collected was analysed using SPSS/ MS-Excel.

RESULTS
Research group sent out 100 questionnaires, of these, 60 were selected. Thirty one respondents were reported as smokers. High number of smokers were found in BDS as compared to MBBS. Out of 60 students, 68.3% were day scholars while 31.6% were Hostel lite. The overall frequency of cigarette smoking was 64.5%, sheesha 16.1% and hash with cigarette and sheesha 19.35%. According to our study, 32.3% students used to smoke regularly while 67.7% were occasional smokers. High frequency of cigarette smoking 90.3%, was found in friends/ family of students who smoke. Of these female students 54.8% had an urge to smoke. 41.9% females smoke 1-5 cigarettes, 12.9% smoke 6-10 cigarettes and 9.7% smoke 11-15 cigarettes per day. As revealed by our study, the most popular brand among female students was Marlboro 35.5% followed by Dunhill 6.5%, Gold Leaf 6.5%, B&H 6.5% and others. Lifestyle 54.8%, Peer pressure 19.4%, and stress were the major causes that made these students start smoking. A high proportion of these females had the habit of smoking with their friends while few do it alone.

Families of 48.3% students were aware of their smoking habit and 51.6% families of smokers were unaware. Majority of the females recognized the dangers associated with active as well as passive smoking but only few of these female smokers once planned to quit allegedly.

Total number of participants were 60 out of which 66.1% are from MBBS and 34.9% are from BDS.

Mostly participants among study population are 19 to 21 years old.
68.3% of participants among study population day scholars. While only 31.6 % participants among study population are hostilities who took part in study.

Out of 60 participants 31 smoke and 29 don't smoke, it shows 52 percent participants among study population smoke either they are from MBBS or BDS.

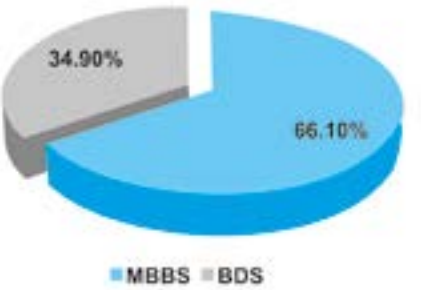

Figure-1. Session

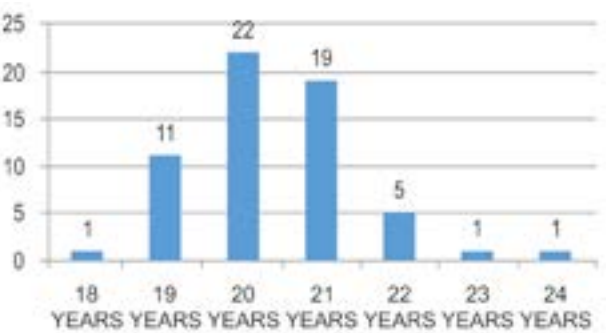

Figure-2. Age

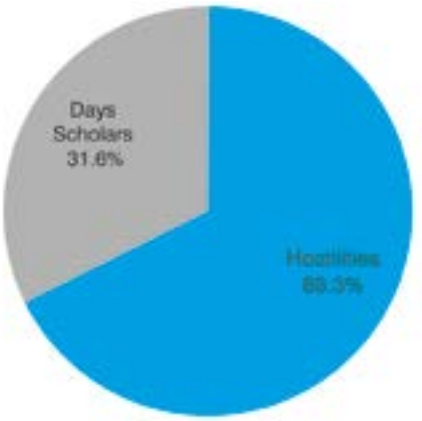

Figure-3. Hostilities / Day Scholar

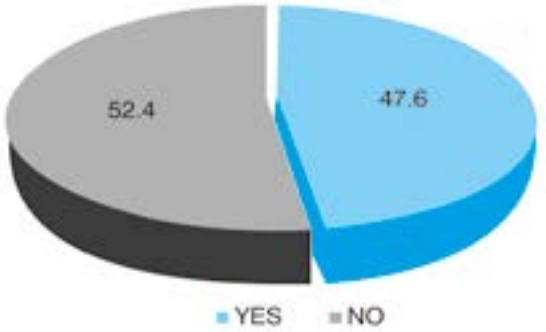

Figure-4. Do You Smoke?

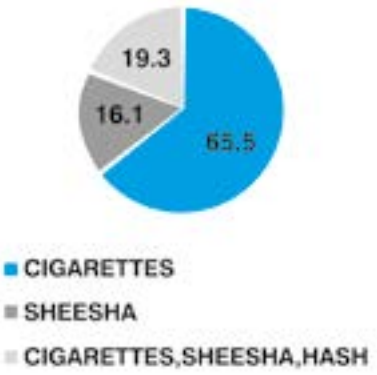

Figure-5. What Do You Smoke?

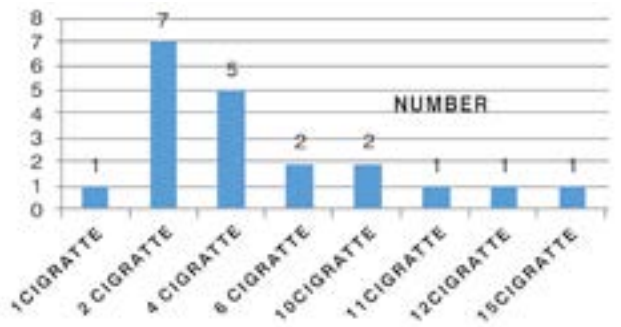

Figure-6 Number of Cigarettes

There are 64.5% participants among study population who smoke cigarettes while 19.3% smoke sheesha cigarette and hash, while 16.1 % smoke only sheesha.

Seven participants among study population smoke 2 cigarette daily, 5 participants among study population smoke 4 cigarette, 2 participants among study population smoke 6 and 10 cigarettes, while 1 participant among study population smoke 1, 10 and 15 cigarettes daily respectively.

Eleven participants among study population smoke Marlboro, 2 participants among study population smoke Dunhill, 2 participants among study population smoke both Marlboro and Dunhill, 2 participants among study population smoke Goldleaf, 1 participant among study population smoke B&H while 2 smoke any brand.

Out of 31 participants among study population 10 smoke regularly and 21 occasionally

Among the study population, 17 participants started smoking as a life style, 8 participants among study population started to get rid of stress and 6 participants among study population started to peer pressure.

Out of 31 respondents, 19 participants among study population smoke with friends, 9 smoke with friends and alone, while 3 smoke alone.

Nineteen participants among study population feel better in mood and daily life after smoking, 7 relive stress by smoking, 3 relive stress and gain focus while 2 smoke to gain focus only.

Among the study population, 17 participants feel urge for smoking out of 31 students while 14 don't feel urge.
Sixteen participants among study population feel need of smoke when they are disturbed, 9 feel to smoke any time and 6 need it most after eating.

Out of 31 respondents, 28 participants among study population friends or family smoke and 3 participants among study population do not have any friend or family member who smoke.

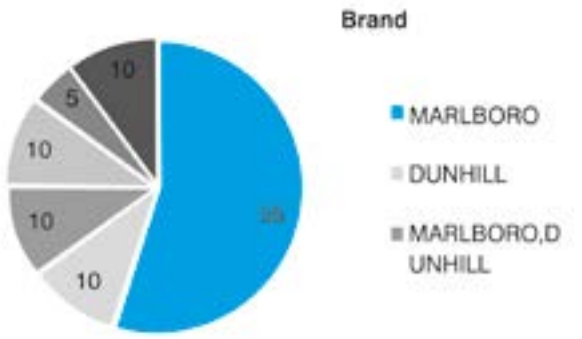

Figure-7. Brand:

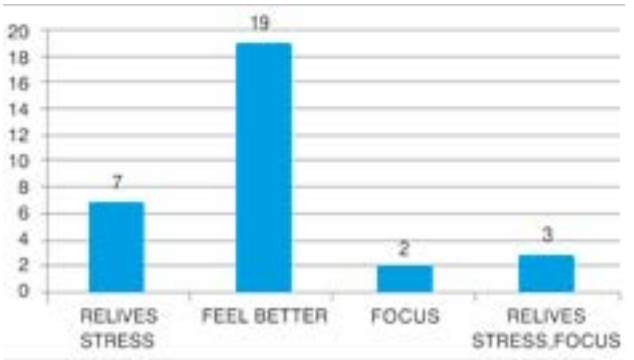

Figure-11. Smoking Makes You

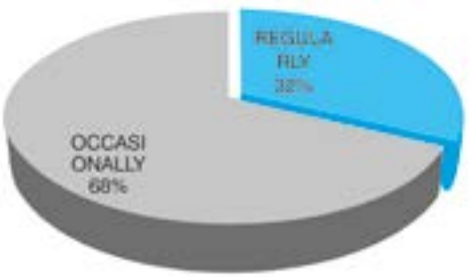

Figure-8. Smoke Regularly / Occasionally

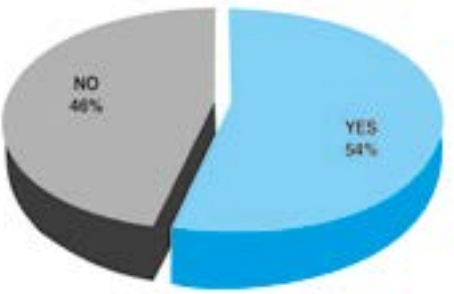

Figure-12. Urge for Smoking

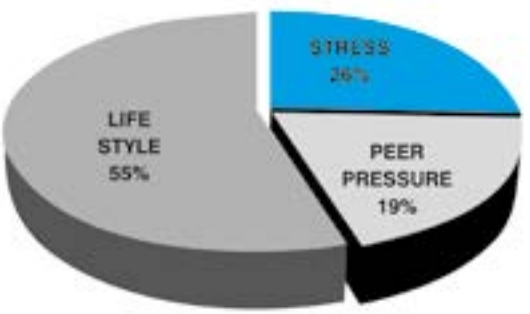

Figure-9. What Makes You Start Smoking?

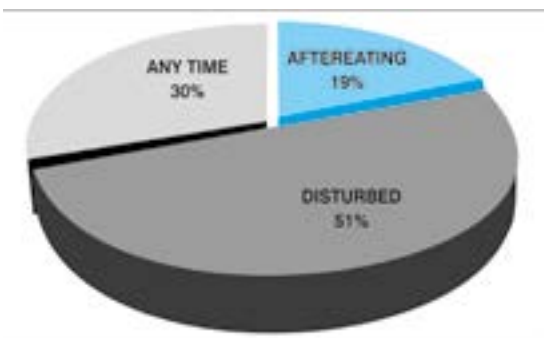

Figure-13. When need it most?

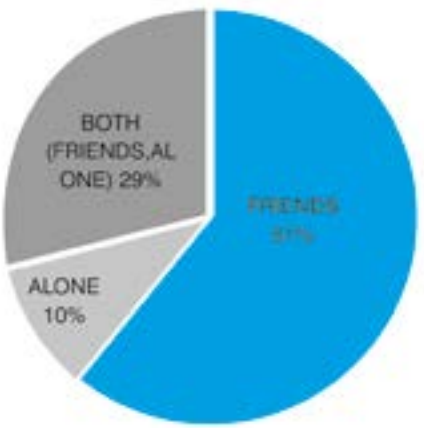

Figure-10. Smoke With Companion

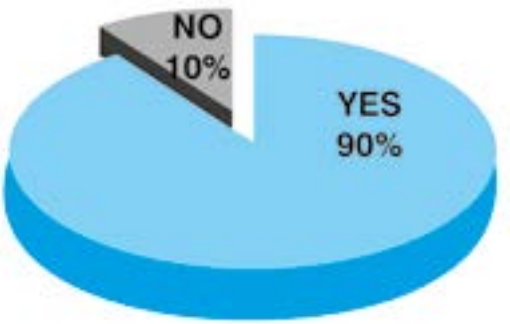

Figure-14. Friends and Family Smoke

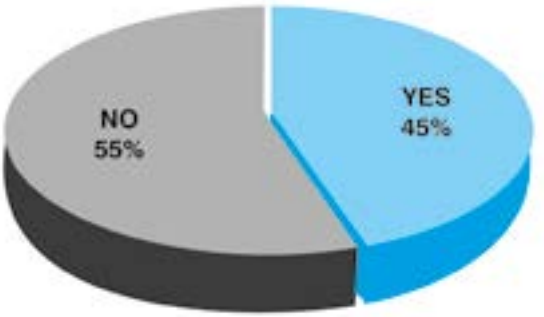

Figure-15. Anyone Ask to Quit

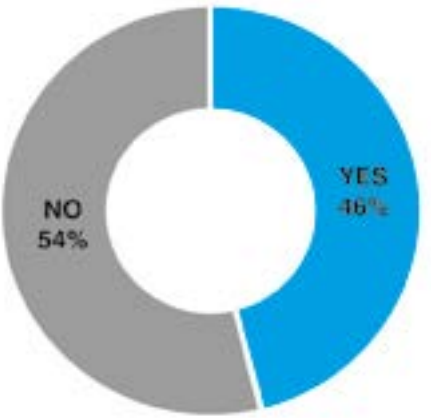

Figure-16. Family Aware of Smoking

Among study population, 17 participants were not asked to quit smoking but 14 were asked to quit it.

There are 15 participants among study population whose family knows they use smoke of any kind while 16 participants among study population's family is not aware of this.

Twenty one participants among study population know the associated risks with smoking but 10 students are unaware.

Among study population, 7 participants tried to quit smoking, 21 didn't try to quit it.

Eight participants among study population feel headache and cramps when they try to quit, 7 feel nausea and 2 feel tingling.

DISCUSSION

Research has shown that the difference in life expectancy between smokers and non-smokers

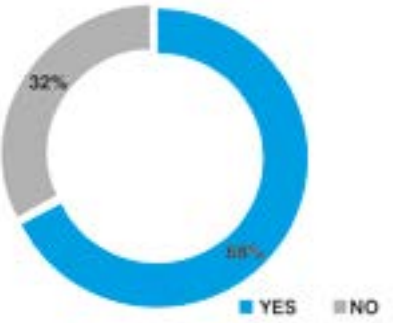

Figure-17. Aware Of Associated Risk:

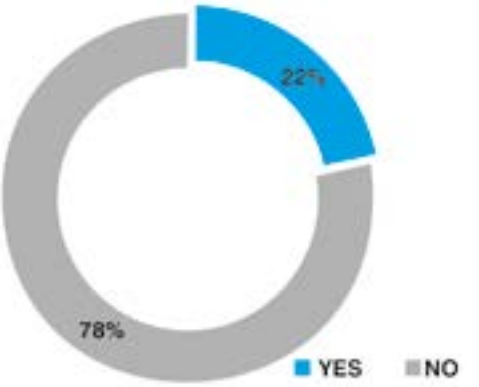

Figure-18. Tried to Quit

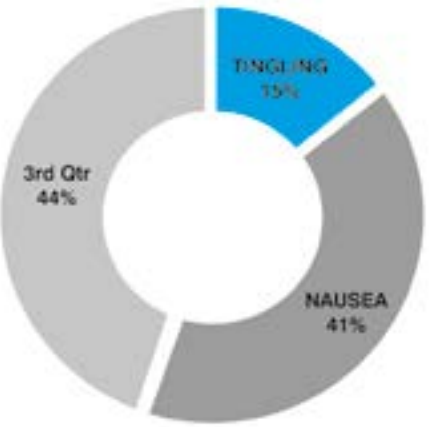

Figure-19. Withdrawal Effects

is 6.5 year. On average, smoking one cigarette reduces life by 7 to 11 minutes.[9] Individuals who smoke cigarettes are more likely to die of lung cancer, coronary heart diseases, stroke and chronic obstructive lung disease. These days' products other than cigarettes, pipes cigars, bidis, hookas and sheeshas are also smoked by many people. Pakistan has high tobacco consumption in South Asia in which around1200 children starts

to smoke every day. 46% Pakistani men & 5.7% Pakistani women smoke tobacco as per Pakistan Demographic Health Survey.[5]

As per study conducted by Ahmed et al[10], in Jinnah University Karachi, 23% of students (31% male and 6% female) were classified as a current smoker and their mean age and standard deviation of smoking initiation was 17±2.7 years (17±2.6 for males and 16±2.9 females). In Pakistan, it is estimated that the prevalence of tobacco smoking is 36% for males and 9% for females. Among young adults especially the university students in Pakistan, the prevalence of smoking is 15% with the majority being male smokers.[11,12] Approximately 1,200 children start smoking everyday.[13,14]

The reason young people start to smoke is complex and multi-faceted. It includes a host of interacting biological, genetic, psychological, economic and social variables. Arguably the most modifiable determinants are social and environmental in nature, including exposure to smoking by parents, siblings, friends, and members of the general public.[15,16]

In this study, a total of 100 female students were asked to fill questionnaires. Response rate was 60, out of which, 46.7% (28/60) were smokers and 53.3% were non-smokers. 11.7% (7/60) were hash smokers and 18.3% (19/60) were cigarette smokers. Majority of these females started smoking after 18 years of age, greatest influence being life style and peer pressure. Our results showed substantial trend of smoking in female medical students of Rawal Institute of Health sciences. Majority had smokers in their family but their families were unaware of their smoking habit. Even though almost everyone was aware of the associated risks, majority never tried to quit. Most of the students were spending Rs 1500 to Rs 3000 per month on smoking.

CONCLUSION

Notwithstanding the limitations, the study conducted may contribute to literature and help inform public about the trend and practices of smoking in the youth. The substantial trend of smoking in female medical students is of particular concern as such rates are typically higher among less educated people. The study also sets an important groundwork for future research that will help more in elaborate studies on use of tobacco among young female in Pakistan.

After conducting the present study, following is recommended regarding smoking hazards:-

- Colleges and universities should have comprehensive smoking education, prevention and cessation programs as a part of orientation.
- There should be a total ban on smoking in all college-owned student residences and construction of smoking kiosks for smokers should be considered as a need of hour.
- There should be proper health system approaches that focus on promoting best clinical practices (behavioral and pharmacological) which help tobacco-dependent consumers increase their chance of quitting successfully.
- Free over-the-counter nicotine replacement therapy patches/gum) should be offered to students, faculty and staff.

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PREVIOUS RELATED STUDY

Noreen Rahat Hashmi, Seema Daud, Iram Manzoor, Khalid Maqsood, Shezad Saleem, Usman Javaid. SMOKING PATTERNS. (Original) Prof Med Jour 16(3) 384-389 Jul, Aug, Sep, 2009.

Shah Nawaz Hassan Gardezi. PASSIVE SMOKING (Review) Prof Med Jour 12(4) 354-356 Oct, Nov, Dec 2005.

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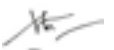
2	Prof. Dr. Mirza Inam Ul Haq	Second Author	
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