

Prevalence and Determinants of Smoking among School Students at Rural Community, Lahore

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Abstract

Background: Smoking is the non-communicable and chronic disease of lungs. This study determines the rate of prevalence and determinants of smoking among school students in rural community of Lahore. **Significance:** This study was conducted to determine the factors that effects on their health status include both physiological and psychological status and how it influences on their personality development. **Methodology:** Descriptive cross sectional quantitative study was conducted at Malikpur community Lahore. Researchers collected the sample by using simple random sampling technique. Total out of 90 students the 73 students voluntarily participated in this study. **Result:** The findings of the study showed that prevalence of smoking among school students was 30.1% in which the female students was excluded. 15.1% students smoke for pleasure seeking while 5.5% smoke due to stress and 4.1% smoke because of peers pressure and 2.7% smoke due to curiosity. **Conclusion:** There is a need to conduct preventive programs to focus on various social and behavioral aspects to help in smoking cessation and reduce prevalence and determinants of smoking.

Keywords: Prevalence; Determinants; Students; Smoking; Lahore.

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BACKGROUND

Smoking is considered as the leading preventable cause of non-communicable disease and it associated mortality worldwide. Tobacco is the major cause of death from chronic diseases (Freeman *et al.*, 2013). The tobacco use especially the cigarette smoking is a major public health issue among students in not only developed countries but also in developing countries. There are about 1.3 million smokers in the world in which about 80% of them are living in developing countries (American Cancer Society, 2006). The studies from around world in Pakistan suggest that the smoking initiation age is less than 16 years of age (Sinha, 2011; Karamat, 2011; Ahmed, 2011).

Smoking is not only harmful for the active smokers but it also harms the passive ones (World Health Organization [WHO], 2013). According to the World Health Organization (WHO) estimates, approximately 47% men and 12% of women smoke in worldwide. The low income countries including Pakistan continue to face the increasing burden of tobacco epidemic with the current cigarette smoking

prevalence 15.2% among adults and 6.3% among youth (Gilani & Leon, 2012). Most of the cigarette smokers (80%) start smoking in teenage, thus the adolescences and adults remain focus on preventive efforts (Global Youth Survey Collaborative Group [GYSCG], 2012).

Smoking is a kind of learning behavior which passes out from various stages namely Preparation, Initiation, experimentation, regular smoking and finally addiction (Stern *et al.*, 1987). The powerfully addictive smoking is tobacco smoking so in developing countries the experimentation and uptake of smoking typically occur in late childhood and in adolescence (Hill *et al.*, 2005). In developing countries studies have also reported a high prevalence of tobacco use among school students (Nichter & Van sickle, 2004). Around the world in each year the tobacco kill more people than the AIDs, drugs abuse, murders, suicides and accidents are biggest cause of death (Mackay & Erickson, 2002).

Smoking is very harmful for every organ of human body that diminishes the health of the smokers. It causes constriction of blood vessels, coronary heart disease and the nicotine which stimulate the adrenal

epinephrine secretion. It is the leading causes of respiratory diseases such as the bronchitis, pneumonia and the chronic airway obstruction by damaging of airway and the alveoli of lungs. Those people who use a tobacco smoking are at a higher risk of developing a several type of cancers such as carcinomas of cervix, kidney, pancreases, mouth, bladder, throat, larynx and the acute myeloid leukemia. The study conducted in Pakistan has reported the current prevalence of smoking among adolescents to be the 13.7 % (Rozi *et al.*, 2005).

At 2030 predicted higher rate of death due to smoking at least 10 million death will be occur per year (Sandford, 2003).Smoking is the biggest fame of tobacco use. People use as smoking and oral in both ways they cause neck and mouth cancer (Mazahir, 2006).

Before the initiation of any health program it is important to understanding about the factor that contributing to the smoking among the school students and then designs the effective preventive measures and interventions to prevent it. This study is conducted to understanding about the prevalence and determinants of smoking among school students. Our survey is an attempt to study the school going students as smoking is initiated during this period when the children are in school or college (Shafquat *et al.*, 2005).

There are several factors that have attributed the use of tobacco products by the students. Most of the students have perception that smoking enhanced one’s image, relieved the boredom and also helped in ease the tension (Nichter& Van sickle, 2004).Although various social and behavioral factors are identified as an important risk factor of smoking among a school students (Veeranki *et al.*, 2013).Some other factors ranging in adolescents from individual to social and societal factors, including the sex, age, socio- economic status, and parental separation, and family conflicts, and the smoking among the peers groups (De vries, 2003; Molyneux, 2004).

In developing country many reason to adopt smoking because of less education specifically in females they are not fully aware how will be the tobacco harmful for themselves(Gender women and the tobacco epidemic Geneva,2010).If individual adopt smoking practice in the age of adolescence than Chance of addiction will increase(Gender women and the tobacco epidemic Geneva, 2010). In worldwide study

see those adult people do smoking they adopt this habit in the age of adolescence (Rezaei, 2007; Elders, 1994).

Many methods and ways can used to decrease the rate of smoking can continue educational program in school and community and use different policy and rules to decrease the smoking prevalence (Khawaja, 2004; Nasir, 2001). In Pakistan the rate of smoking in male increase rather than female (Richmond, 1997). In every 100 individuals only 4 females are smoker (Sandford, 2003).

Educational and guidance program also given on the passive smoking. Those individual who's are not smoker but also effect from family and friends that’s why guidance and awareness would be very helpful (Hill *et al.*, 2007). According to the current scenario calls for the understanding of initial stage of smoking as the youth is going to these stages of smoking behavior is a considerable risk of regular smoking in future. Thus, the identification of smoking individuals and its determinants is very important in order to make efforts to reduce the future smoking prevalence.

METHODOLOGY

This was a descriptive cross sectional quantitative research study design which was conducted on the school students of rural community about the prevalence and determinants of smoking. The study was conducted in school students of male except female at Malikpur rural community Lahore. Researchers were collected sample by themselves by using Simple Random Sampling technique. Total populations of 90 school students were approached to participate in the study but only 73 students were participated willingly. The participants were all male school students who were willing to participate in the study except the female students. Researchers were collected data by using research questionnaire related to determinants of smoking. All the students were explained the importance of study and informed consent form was taken. The questionnaire was explained in their language which is in Urdu. Participants were asked to sign the informed consent form to confirm that they had obtained all the necessary information regarding study before it was used. Confidentiality was maintained throughout the study.

Demographic Data Questionnaire

1	Are you a student?	Yes	No
2	In which class do you read?	7 th	9 th
		8 th	10 th
3	How old are you?	10-12	16-18
		13-15	19-20
4	What is your father occupation?	Farmer	Government employed
		Labor	Unemployed
5.	What is your father monthly income?	10,000	20,000
		15,000	25,000

● Smoking Related Questions

1.	You have a habit of smoking?	Yes	No
2.	Reason of your smoking initiation?	Curiosity	Peers pressure
		Pleasure	Stress
3	Average number of cigarette smoke per day?	<10	11-16
		16-20	>20
4	If one of your friends offers you a cigarette, would you smoke it?	Definitely yes	Definitely not
		Probably yes	Probably not
5	At any time during next 12 months do you think you will smoke a cigarette?	Definitely yes	Definitely not
		Probably yes	Probably not
6	You think you will be smoking cigarette 5 years now?	Definitely yes	Definitely not
		Probably yes	Probably not
7	Your parents smoke?	Father only	Mother only
		Both	None
8.	Any of your closed-friend smoke cigarette?	None of them	Some of them
		Most of them	All of them
9.	During this school year were you taught in any of your classes about the dangers of smoking?	Yes	No
		Not sure	
10	You think the boys who smoke cigarette make boys more or less attractive?	More friends	Less friends
		No difference from nonsmokers	
11	You think smoking cigarette make boys more or less attractive?	More attractive	Less attractive
		No difference from nonsmokers	
12	Smoking cigarettes help people feel more comfortable at celebrations, parties or in other social gatherings?	More comfortable	No difference from nonsmokers
		Less comfortable	
13	You think cigarette smoking is harmful to your health?	Definitely yes	Definitely not
		Probably yes	Probably not
14	You think smoke from other people’s cigarette is harmful to you?	Definitely yes	Definitely not
		Probably yes	Probably not
15	Have you ever tried or experimented with cigarette smoking, even one or two puff?	Yes	No

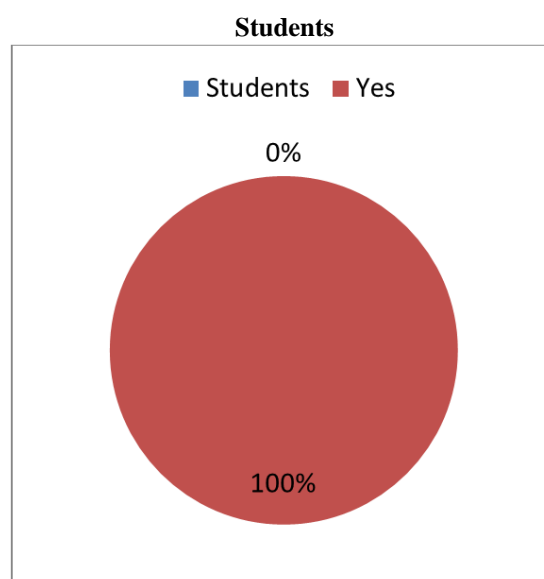
Data Analysis

Statistical analysis was carried out using SPSS version 21. Descriptive analysis was conducted to determine the prevalence and determinants of smoking among the study population. The results of this study were mainly calculated in frequencies and percentages and were graphically represented as pie charts, bar charts and histograms.

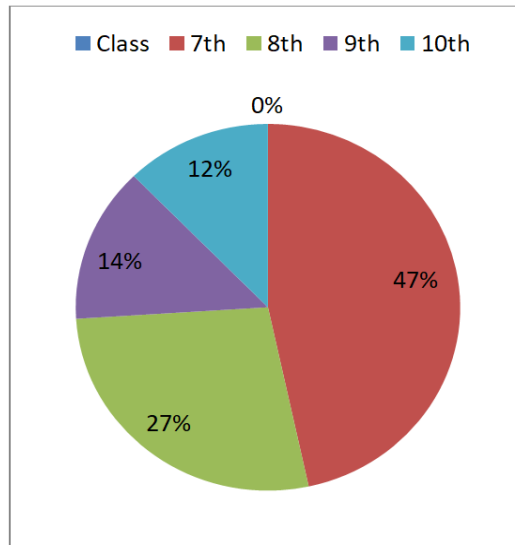
RESULTS

Total populations of 90 school students were approached to participate in the study but only 73 students were participated willingly. The students belongs to 7th class interacted 46.6% and 27.4% students from 8th class &13.7% were from 9th class and 12.3% students belongs to 10thclass.49.3% students were 10-12 years of age and 31.5% students were 13-15 years & about 19.2% students were 16-18 years of age. Their father’s occupation were farmer (61.6%), labor (9.6%) while (19.2%) were government employee & (9.6%) wereunemployed.32.9% are those whose

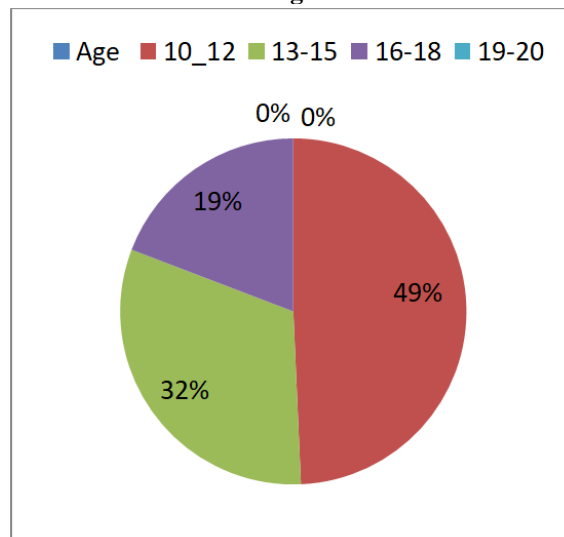
father’s income were 10,000/-,16.4% earned 15,000/- ,13.7% earned 20,000/-,37.0% earned 25,000.



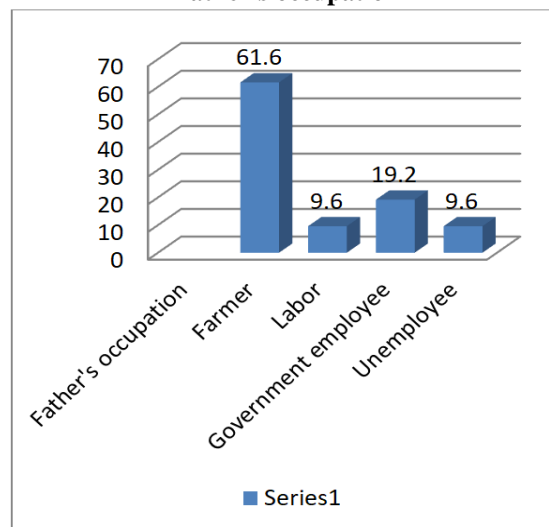
Class



Age



Father's occupation



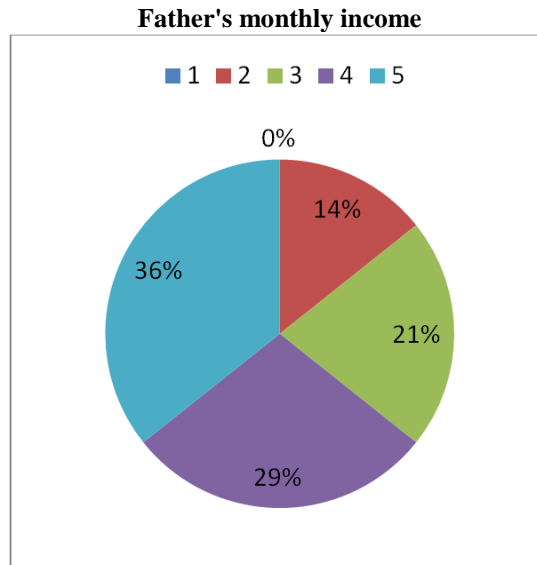
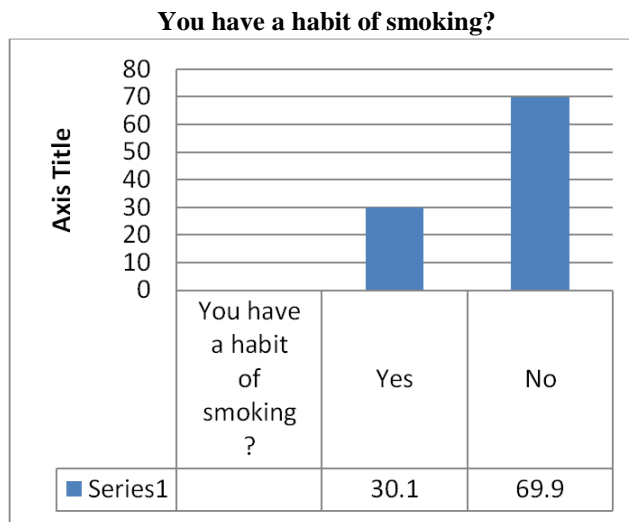
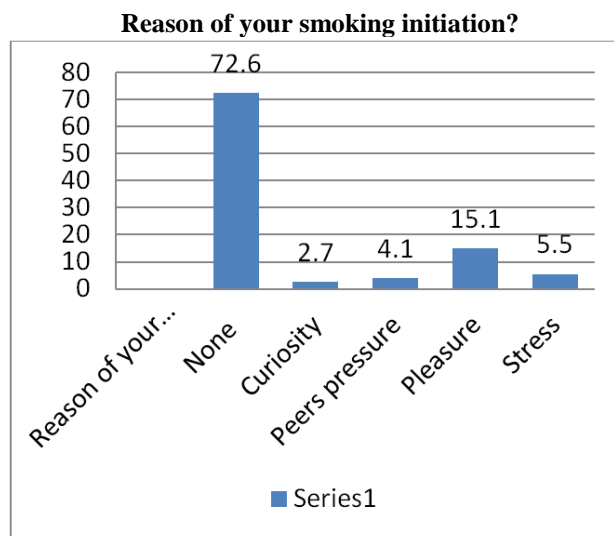


Figure 1: Demographic characteristics of participants



Illustrate about the attribute of smoking among school students at rural community Lahore. Out of total

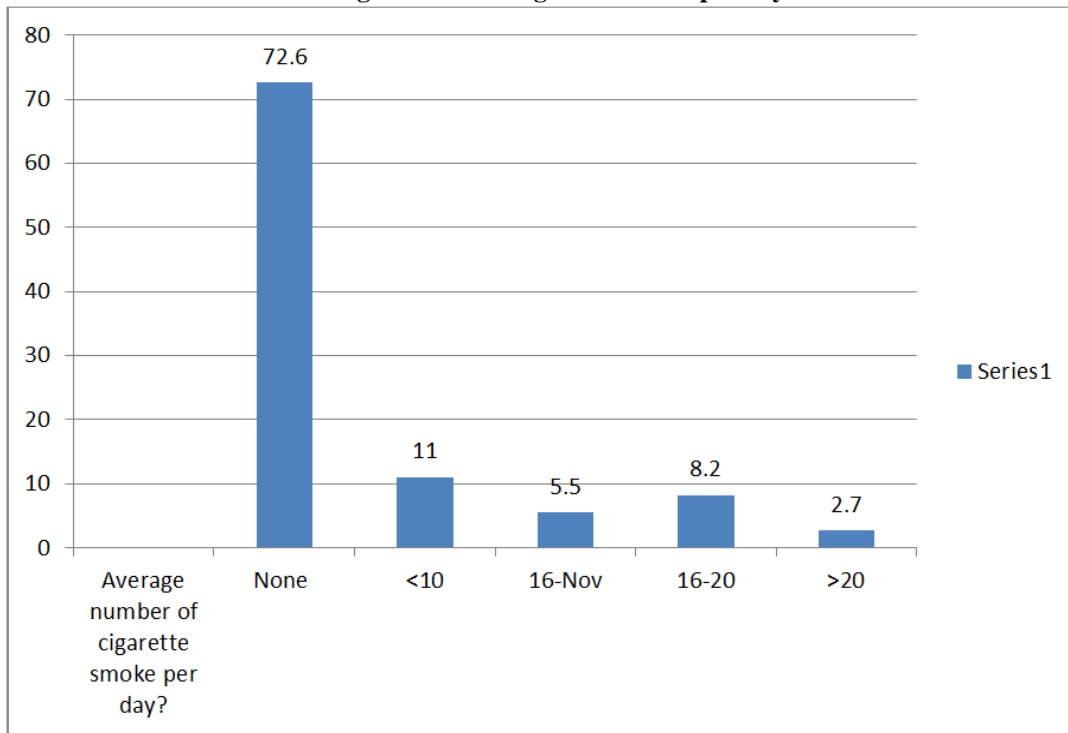
population only 30% students have habit of smoking while rests of 69.9% students did not smoke.



Pleasure was the major reason among the students for initiation of smoking in which 15.1% students were involved while due to stress 5.5% and

because of peers pressure 4.1% and 2.7% smoke due to curiosity.

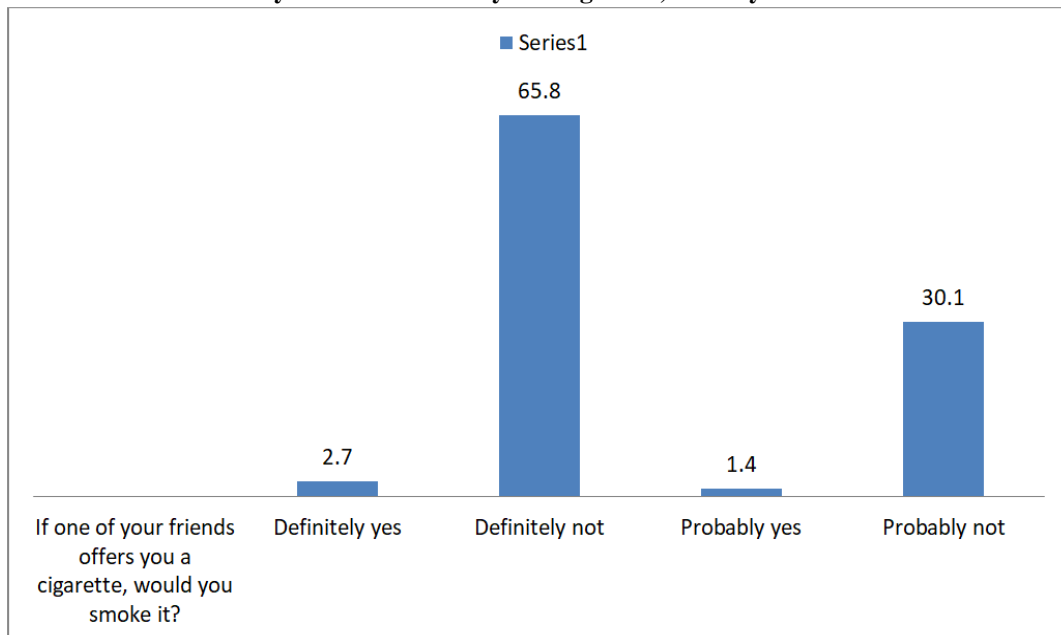
Average number of cigarette smoke per day?



Approximately 11.0% participants smoke < 10 cigarettes per day. And 5.5% smoke 11-16 cigarettes

per day. While 8.2% smoke at least 16-20 cigarettes and 2.7% were those who smoke > 20 cigarette per day.

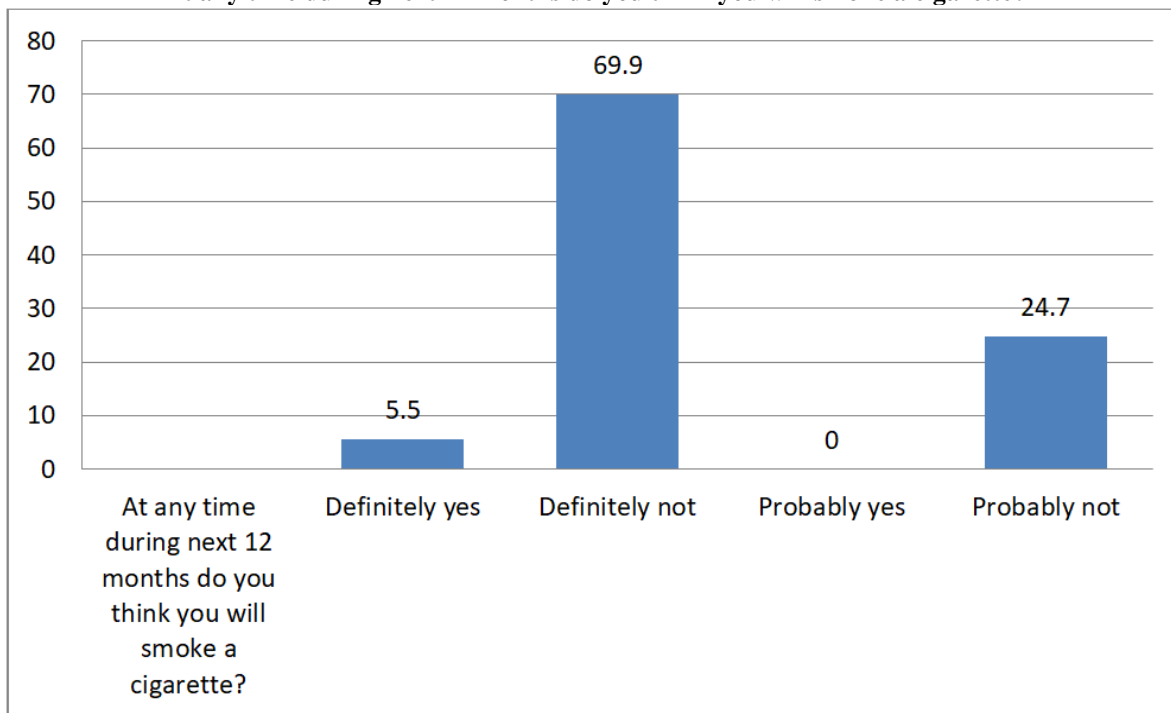
If one of your friends offers you a cigarette, would you smoke it?



65.8% students responded that they would definitely not accept the offer of smoking from their

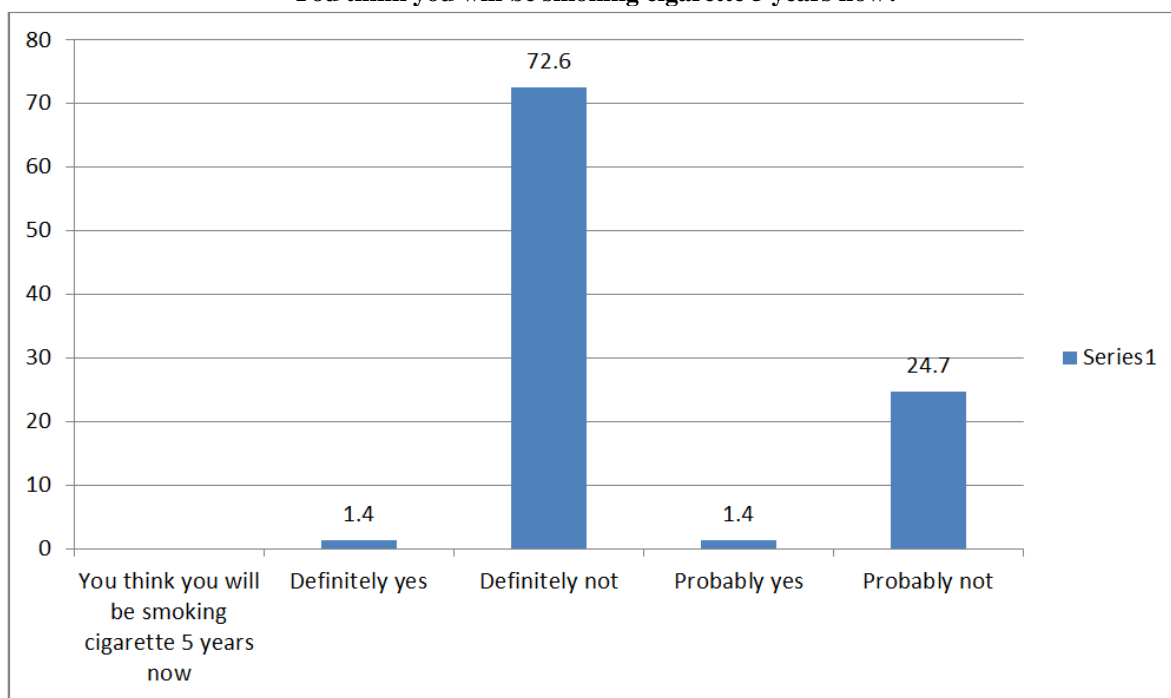
friends but 2.7% responded to definitely accept this offer.

At any time during next 12 months do you think you will smoke a cigarette?



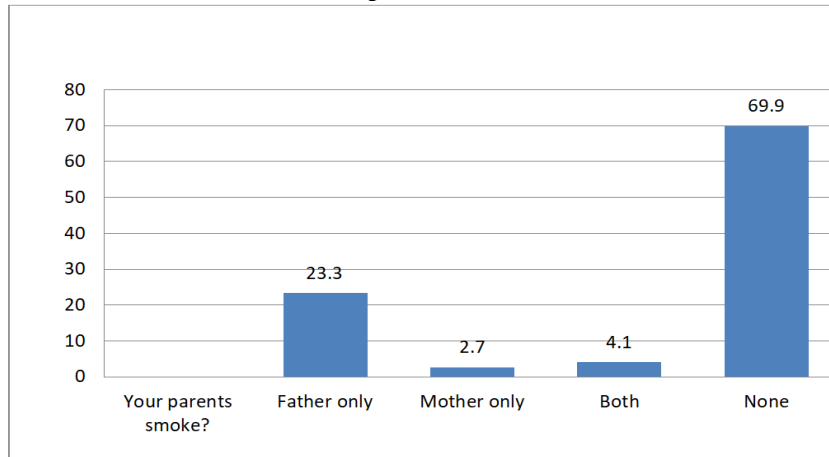
Those students who ensure that they would definitely adopt the smoking behavior are 5.5% and rest of 69.9% participant will not acquire this behavior.

You think you will be smoking cigarette 5 years now?



Almost 1.4% participants were agreed to acquire this habit in next 5 years & 72.6% were not agreed.

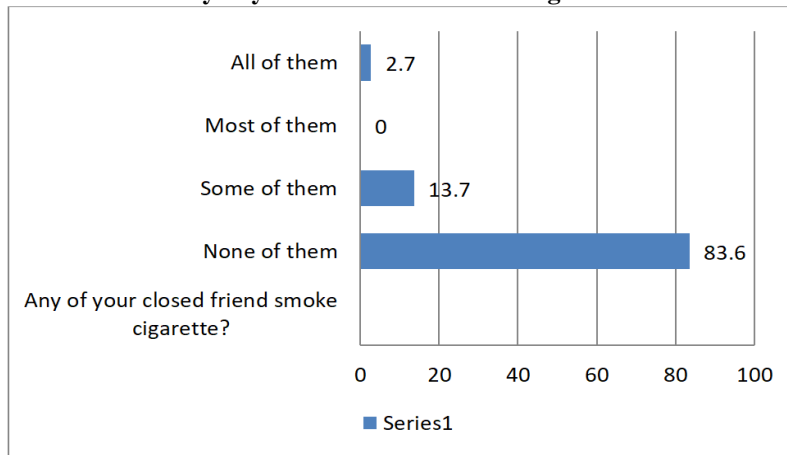
Your parents smoke?



In families where when more people smoke inside the home were likely to magnify individual smoking behavior. The mothers of the participants who

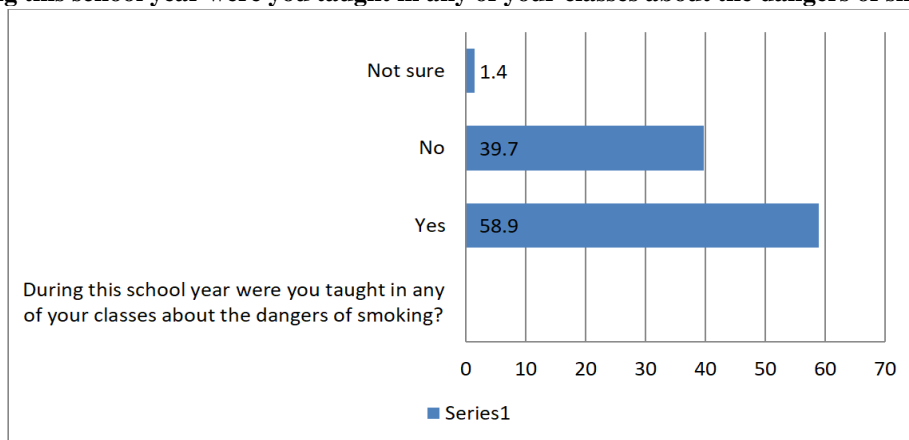
have an attribute of smoking were only 2.7% while fathers smoking rate were 23.3% & if we discuss about both percentages approximately 4.1%.

Any of your close friend smoke cigarette?



In addition there was also a chance of increase in smoking among participants by 13.7% due to their close friends.

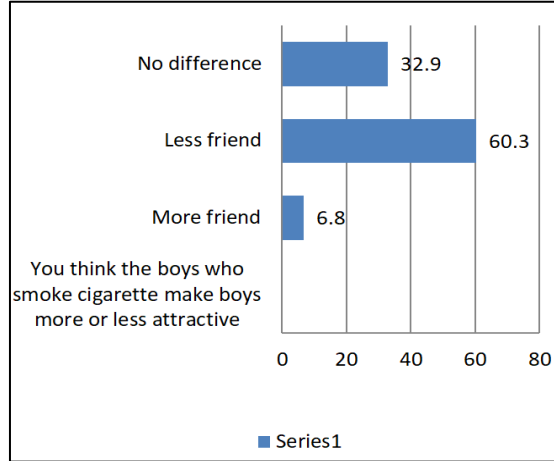
During this school year were you taught in any of your classes about the dangers of smoking?



About 58.9% students state that during their education status they learn about the harmful effects of

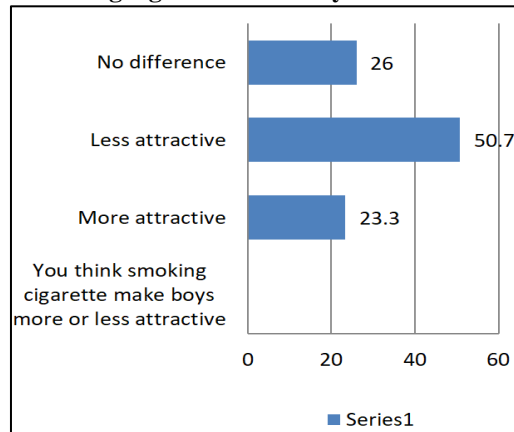
smoking but rest of 39.7% have no knowledge related to its effects.

You think the boys who smoke cigarette make boys more or less attractive?



According to this study the results show that 6.8% students thought if the boys develop the habit of smoking then they look attractive.

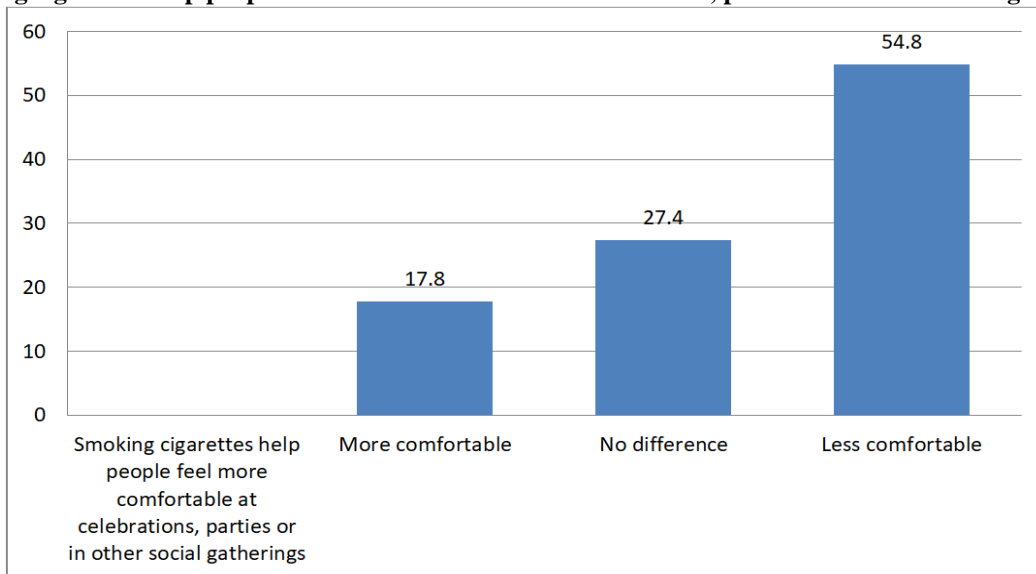
You think smoking cigarette make boys more or less attractive?



In addition 23.3% participants thought that cigarette smoking make them more attractive and

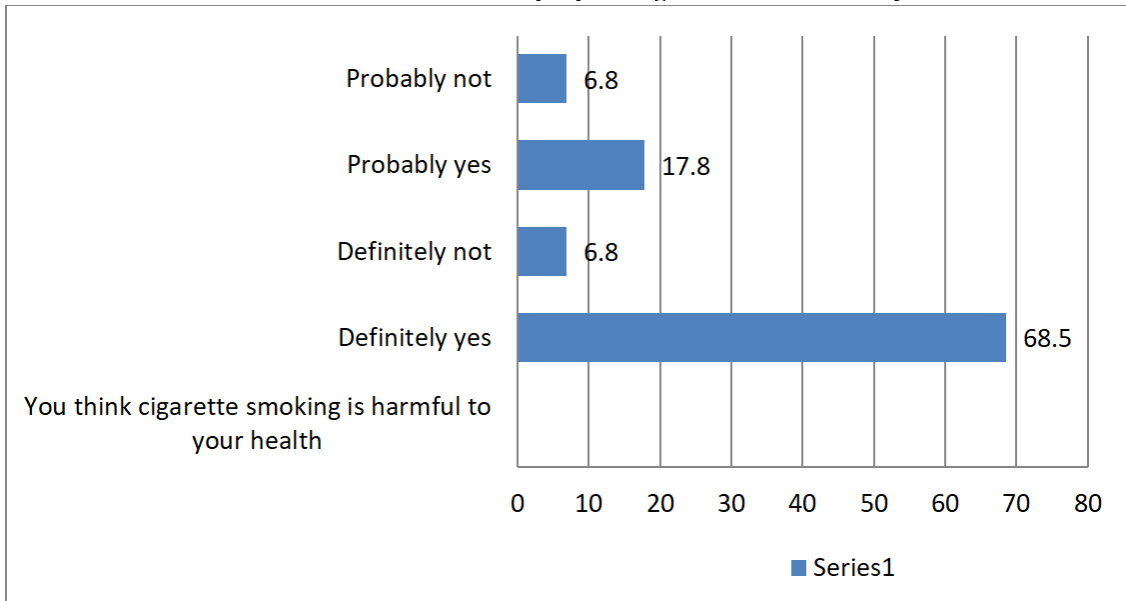
handsome. But 50.7% were those who didn't have same perception & 26% made no difference.

Smoking cigarettes help people feel more comfortable at celebrations, parties or in other social gatherings



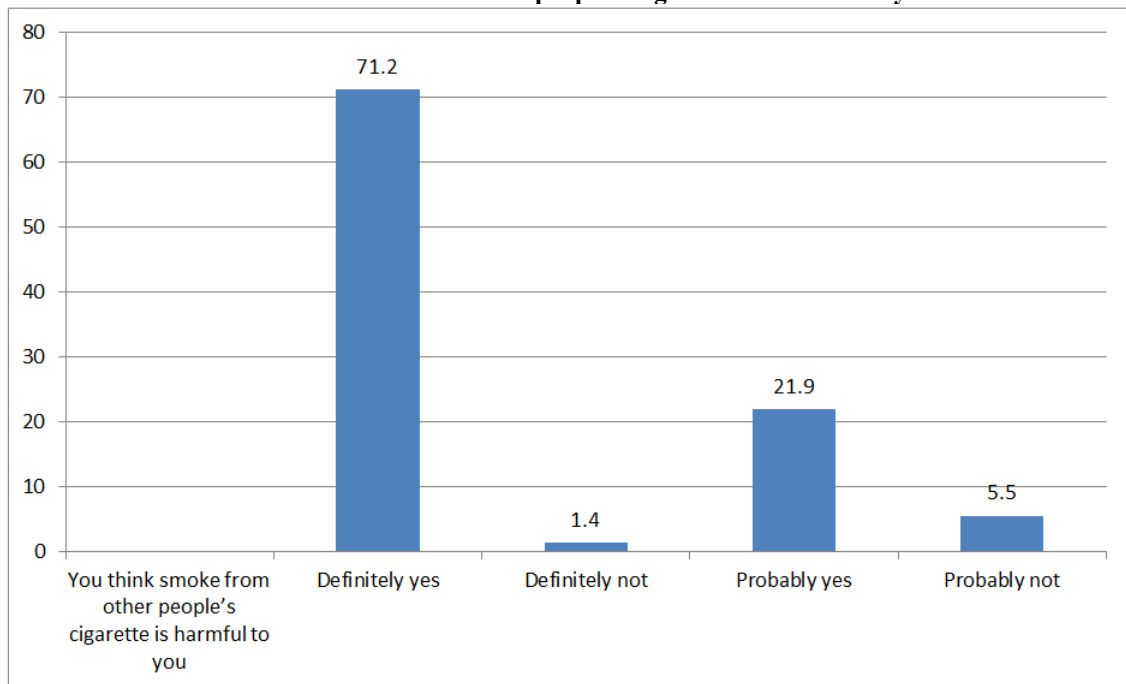
The 17.8% active smokers felt more comfortable when smoke in parties and social gatherings but the 54.8% participant were those who felt uncomfortable with it.

You think smoke from other people's cigarette is harmful to you



Those students who ensure that smoking have harmful effects on their health are approximately 68.5%. While on the other hand 6.8% were not agreed with it.

You think smoke from other people's cigarette is harmful to you



Among passive smokers 71.2% thought that the active smokers who smoke cigarette definitely have harmful effects on their health.

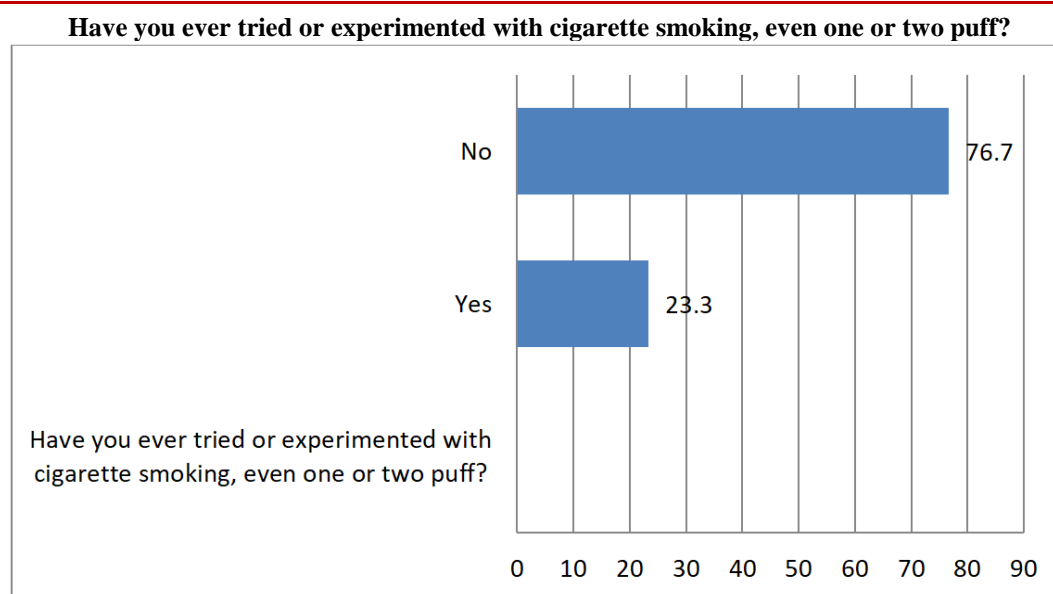


Fig 2: Prevalence and determinants of smoking among school students at Rural Community Lahore

This study show that 23.3% participants who try to experience a cigarette while 76.7% didn't experience it.

DISCUSSION

This research study highlighted the following factors knowledge, attitude, behavior and socioeconomic status of the school students between age 10years to 20years at a rural community Lahore. Researchers also has identified related risk factors of smoking such as stress (5.5%), pleasure (15.1%), curiosity (2.7%), peers pressure (4.1%). Moreover the researchers also has calculated the ratio of smoking among school students and the findings of the study shown that the behavior of smoking influence on the health of the individual and it is concluded that smoking is the major cause that can lead towards serious health problems. The knowledge and practice were interrelated if they know about the ill effects of the substances then their smoking practice can be limited. Knowledge of adverse effects of smoking on the lungs, heart, and kidney can help to decrease morbidity and mortality in late age.

Parental smoking has greater influence among the students for initiation of smoking. There was a need to give the awareness to their parents to adopt a healthy behaviour and lifestyle to promote their health eliminate those attributes of smoking that will lead them towards a morbidity and death and they should be more conscious about their children and should keep them under observation. Having family members who smoked it had also predisposed school-going teenagers to adopt smoking habit. This may be because families are the primary sources of reinforcement of students towards this smoking behavior .Because of the simple and widespread availability of tobacco and the lack of any restrictions imposed by school authorities or parents, school

students are spending significant amounts of money on these products, which are sold to people of all age even when they require stationary or books for the classroom.

Behavioral factors were also the source of initiation of smoking at this because of pleasure, and to look more attractive and handsome. Psychosocial factors which were the surrounding of the students to gain this inadequate behavior of smoking to see their parents, elder sibling, relative, cousins, and their friend circles, social gathering and also their teacher who smoke. Peer pressure is one of major reason of initiation of smoking among school student that made them have regular smoking, finally they become smoker. At the beginning stage of smoking they were hesitated to smoke publically but with passage of time they become use to and feel more confident to smoke. They felt that smoking made them more comfortable and relax minded and relieve the stress. The smoking also affects our biological, social and emotional function. The alteration in the behavior due to smoking made socially withdrawal and family separation and feel satisfied to live alone this behavior effect their mentally status too.

Passive smoking is more dangerous than the active smoking. The inhalation of smoke of tobacco also effect lung of passive smoker. There was a need to conduct programs on prevention and control measures of smoking in school level so that faculty and students aware about the consequences of smoking to reduce the morbidity and mortality rate.

CONCLUSION

It had been concluded from the study that prevalence of the smoking among school student was 30.1%.Pleasure seeking and peer pressure were more association with smoking. Family and friends have lack of knowledge about smoking consequences that made

the students to initiate a smoking behavior. 1.4% student agree to acquire this habit in next 5 years. In addition the close friends also increase the chance of smoking among students. 13.7% students acquire the smoking behavior by their school friends' offers and bad companion and social gatherings and parties. 23.3% student would like to experience the smoking. There is need to conduct the preventive programmes to focus on various social and behavior aspect to help in smoking cessation and reduce the prevalence and determinants of smoking. To involve the students in recreational activity to adopt the healthy lifestyle.

LIMITATIONS AND RECOMMENDATIONS

The findings of this study cannot be generalized on whole population because this study was conducted on specific age group. This was conducted only on limited school students of a Rural Community Lahore so findings can't not be generalized on all rural communities of Pakistan. This study gave no comparison among Rural & Urban community the factors could not explore deeply on Rural Community.

There should be awareness programs regarding hazardous effects of smoking at School level for the faculty and students. There should be an advertisement on social media to educate people about the smoking consequences on the health. The government should charge to those commercial sectors who sale the smoking items. There should be a rehabilitation centers at rural level for the people who wants to quit smoking.

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