

# Effect of Smoking on the Working Environment and Willingness to Quit Smoking among King Fahad Specialist Hospital-Dammam staff in the Eastern Province, Saudi Arabia

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## ABSTRACT

**Background:** This study examines the prevalence of smoking among King Fahad Specialist Hospitals-Dammam and the effect of smoking on the working environment and their willingness to quit smoking. To increase the proportion of successful attempts to quit smoking, it is important to understand the needs of smokers and their concern. This study seeks to find out the smoking prevalence, the level of willingness to quit and reason influencing smoking cessation among King Fahad Specialist Hospital-Dammam staff.

**Materials and Methods:** This study is a descriptive cross-sectional study carried out among King Fahad Specialist Hospital-Dammam staff. A sample size of 350 was determined. The questionnaire was semi-structured, pre-tested, and self-administered. The analysis was performed, data were analyzed using a statistical program (SPSS version 21). Frequency tables and cross-tabulations were generated with a statistical significance *P*-value pre-determined at <0.05.

**Results:** The number of respondents that are current smokers was 110 (31.4%) and nonsmokers 240 (68.6%). Those willing to quit out of the 110 that currently smoke are 74 (67.3%) while 36 (32.7%) were not willing to quit. Reasons to quit smoking were expressed mainly by smokers concerned about their health 84.4%. Current smokers missed more days of work and experienced more unproductive time at work compared to nonsmokers.

**Conclusions:** Smoking prevalence is relatively high among our hospital workers. Most of the smokers tried to quit smoking but they did not succeed due to various reasons. Current smokers showed high percentage in productivity loss in compared to nonsmokers. There is an importance to developing a smoking cessation program to cover the needs of this disadvantaged population group.

**Key words:** Non-smoker, Smoker, Working environment

## INTRODUCTION

Cigarette smoking is the leading preventable cause of mortality. Smokers who quit reduce their risk of developing and dying from tobacco-related diseases.<sup>[1]</sup>

Approximately 70% of smokers say that they want to quit, and over 50% of smokers report that they tried to quit in

the past year. However, only 3–6% of smokers who make an unaided quit attempt are still abstinent 1 year later. Only 32% of smokers who try to quit seek help and even fewer use the most effective treatments.<sup>[2]</sup> With optimal treatment, 1-year abstinence rates after a single quit attempt can exceed 30%.

Cigarette smoking is a major modifiable health risk factor in the United States, significantly contributing to deaths from cancer and cardiovascular and pulmonary diseases. Although it is estimated that smoking-related illnesses lead to 443,000 premature deaths and almost \$100 billion in lost productivity each year,<sup>[3]</sup> one in five American adults still smokes regularly (22% of men, 17.5% of women).<sup>[4]</sup>

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The harmful effects of smoking do not only affect smokers but extend far beyond the smoker. Exposure to secondhand smoke can cause serious diseases and death. Each year, an estimated 88 million nonsmoking Americans are regularly exposed to secondhand smoke and almost 41,000 nonsmokers die from diseases caused by secondhand smoke exposure.<sup>[5]</sup>

**Aim of the Study**

The aim of this study is to assess the effect of smoking on the working environment and to assess the need of an educational program to improve the environment and to establish a smoking cessation program at King Fahad Specialist Hospital-Dammam.

**Objectives**

The objectives are as follows:

1. To assess the effect of smoking on staff behavior at work
2. To assess the effect of smoking on work environment in general
3. To assess the need for a smoking cessation program
4. To assess the prevalence of smoking among the staff at KFSH-D
5. To establish the necessary knowledge to be able to assess the effectiveness of our smoking cessation program after implementation.

**MATERIALS AND METHODS**

**Study Area**

This study was conducted in King Fahad Specialist Hospital in Dammam city, Saudi Arabia.

**Study Design**

This was a cross-sectional descriptive study through a self-administered modified questionnaire.

**Inclusion Criteria**

All staff females and males in KFSH-D were included in the study.

**Exclusion Criteria**

None KFSH-D staff and patients were excluded from the study.

**Study Variables**

- Dependent variable: Effect of smoking on working environment and productivity
- Independent variable: Socio-demographic data: Age, gender, nationality, level of education, occupation, and marital status.

**Sampling Size**

There is around 4000 staff in KFSH-D and sample size was calculated to be 350.

**Preparatory Phase**

**Official procedures**

Approval of the study will be requested from IRB before implementation of the study.

**Pilot study**

A pilot study was done in December 2016 to some of the staff of King Fahad Specialist Hospital-Dammam. The questionnaire was extracted from some questionnaires from the previous studies with some modification according to the objectives of the study, culture, and community.

A total number of samples was 30 it was distributed to participants and the response was 100%. Collected data were revised immediately and computerized. Frequency tables were drawn to explore the findings with the biostatistician.

**Data Collection**

**Data collection tools**

Self-administered questionnaire structured by the researcher and was validated by three consultants.

**Data collection techniques**

Questionnaires were distributed to the staff during their visit to the employee health clinic in KFSH-D. Each eligible participant received a copy of an invitation letter that contains brief information about the aim of the study, its importance, the value of his/her participation, and instructions on how to fill the questioner ensuring their confidentiality. This was done over 3-month period.

**Data management**

Collection of data and double-checking was done by the primary investigator and then data were sorted by numbers. Data were computerized and analyzed by Health Research Center by using the SPSS program version 21 and double check by the primary investigator.

The data confidentiality was the Primary Investigator responsibility.

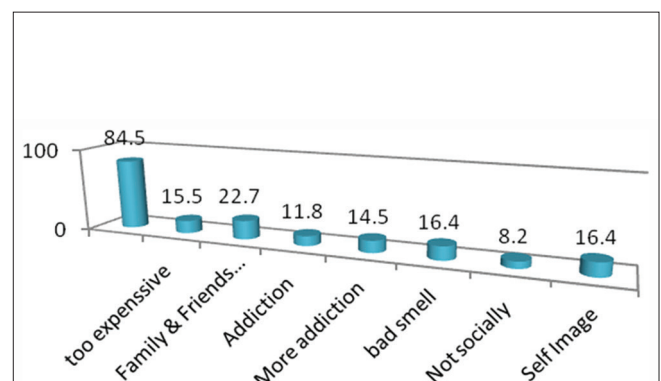


Figure 1: Possible reason for smokers to quit smoking

**Data analysis and statistical considerations**

Data were analyzed using a statistical program (SPSS version 21). Descriptive statistics (Mean, standard deviation, frequency, and percentages) were calculated for each variable. All independent variables were cross-tabulated with the dependent variable.

**Limitation of the Study**

This study enrolled only employees at KFSH-D, (tertiary hospital). It did not cover the other adult population in a different environment. As the study tool is a questionnaire, it will be subjected to possible recall bias.

**Ethical Considerations**

Approval of the study was requested from IRB before implementation of the study. As well as written consents for participation from each participant. Filling in the questioner was considered an approval of the information contained in it. Privacy and confidentiality were safeguarded throughout all phases of the study. The information used was for research purposes only.

**RESULTS**

Three hundred and fifty health workers met the criteria specified for the sample. All of the chosen health workers agreed to participate in the study. The response rate was 100%. Data collection began on March 1, 2017, and ended on March 29, 2017.

The results of data analysis are presented for each specific research question in the following sections.

**Table 1: Demographic characteristics of healthcare workers (n=350)**

Variable	Number (%)	Variable	Number (%)
Sex		Work	
Male	173 (49.4)	Physician	52 (14.9)
Female	177 (50.6)	Administrative	93 (26.6)
		Allied health	81 (23.1)
Age		Nurses	78 (22.3)
18–24	25 (7.1)	Others	46 (13.1)
25–29	79 (22.6)		
30–34	100 (28.6)	Monthly income	
35–39	73 (20.9)	SR <5000	26 (7.4)
40–44	45 (12.9)	SR 5,000 – SR 9,000	139 (39.7)
45–49	21 (6.0)	SA 10,000 – SR 19,000	121 (34.6)
50 plus	7 (2.0)	SA 20,000 – SR 29,000	27 (7.7)
		SR 30,000 – SR 39,000	12 (3.4)
Marital status		SR 40,000 – SR 49,000	14(4.0)
Single	112 (32.0)	MORE THAN SR 50,000	11 (3.1)
Married	225 (64.3)		
Divorced	13 (3.7)		
Widowed	0 (0)		
Nationality			
Saudi	227 (64.9)		
Non – Saudi	123 (35.1)		

**Description of Sample**

**Health workers demographic characteristics**

The results are summarized in Table 1. Of the 350 questionnaires distributed, 350 returned with a response rate of 100%. The male participants constituted 49.4% (173) while the females were 50.6% (177). Most of the participants age-range were 30–34 comprising 28.6% (100), followed by 25–29 years with 22.6% (79), 35–39 years 20.9% (73), and the least was 50 years and above.

More than half of the samples were married 64.3% (225), whereas single was 32% (112) divorced participants constituted 3.7% (13), and 0% widow/widower in our sample size.

The majority of the nationality in our sample was Saudis representing 64.9% (227/350) and non-Saudis were 35.2% (123/350). Their race was mainly Arabs counting for 70.9% (248/350), followed by Asians 24.9% (87/350) than African 1.7% (6/350) then North American 1.1% (4/350) then South American 0.6% and the least were European 0.3% (1/350).

Administrative comprised 26.6% (93), Allied Health was 23.1% (81), nurses were 22.3% (78), physicians were 14.9% (52), and other fields were 13.1% (46). Out of the 350 participants, 64.9% (227) were Saudi, while 35.1% (123) were non-Saudi of different nationalities. The majority race were Arabs counting for 70.9% (248), followed by Asians 24.9% (87).

The majority of our samples income was between the ranges SR 5,000 – SR 9,000 representing 39.7% (139/350), followed by SR 10,000 – SR 19,000 representing 34.6% (121/350) then SR 20,000 – SR 29,000 representing 7.7% (27/350) then <SR 5,000 representing 7.4% (26/350) and the least were between SR 30,000 – more than SR 50,000.

**Smokers information**

In Table 2, it shows out of 350 individuals 31.4% (110) were smokers, non-smokers 68.8% (240).

The majority of smokers have been smoking from 5 to 10 years which counts for 24.5% (35/110), followed by <5 years 27.3% (30/110) and the minority were more than 20 years 5.5% (6/110).

A number of packs smoked greater number showed that 48.2% (53/110) smokes less than half pack and 35.5% (39/110) smokes half pack to one.

When they were asked about do they think working in a tertiary care hospital affects their views to smoking 60.9%

**Table 2: Smokers information**

Variable	Number (%)	Variable	Number (%)	Variable	Number (%)
Smoker		Smoking policy		Attempt to quit smoking	
Yes	110 (31.4)	Not strict	19 (17.3)	Yes	74 (67.3)
No	240 (68.6)	Low strict	18 (16.4)	No	36 (32.7)
Years of smoking		Moderately	35 (31.8)	Ways to quit	
<5 year	30 (27.3)	Strict	30 (27.3)	N/A	34 (30.9)
5–10 years	35 (31.8)	Very strict	8 (7.3)	Personal effort	63 (57.3)
10–15 years	27 (24.5)	Family conflict		Nicotine patches	3 (2.7)
15	12 (10.9)	Never	20 (18.2)	Nicotine gum	2 (1.8)
>20 years	6 (5.5)	Rarely	18 (16.4)	Cessation clinic	2 (1.8)
Cigarette packs		Sometimes	42 (38.2)	Others	6 (5.5)
<Half pack	53 (48.2)	Often	10 (9.1)	Wish to quit	
Half pack to one pack	39 (35.5)	Always	20 (18.2)	Yes	82 (74.5)
One pack to two packs	17 (15.5)	Work conflict		No	7 (6.4)
>Two packs	1 (.9)	Never	45 (40.9)	I don't know	21 (19.1)
View of smoking		Rarely	22 (20.0)	Cessation program	
Yes	67 (60.9)	Sometimes	27 (24.5)	Yes	86 (78.2)
No	25 (22.7)	Often	4 (3.6)	No	12 (10.9)
I don't know	18 (16.4)	Always	12 (10.9)	I don't know	12 (10.9)
Hospital Image		Embarrassment		Join this program	
Yes	73 (66.4)	Never	20 (18.2)	Yes	58 (52.7)
No	28 (25.5)	Rarely	12 (10.9)	No	27 (24.5)
Others	9 (8.2)	Sometimes	28 (25.5)	I don't know	25 (22.7)
		Often	15 (13.6)		
		Always	35 (31.8)		

(67/110) answered yes and 22.7% (25/110) answered no and 16.4% (18/110) were not sure.

About 66.4% (73/110) of smokers think their habit affect the hospital's image, whereas 25.5% (28/110) do not and 8.2% (9/110) are not sure if their smoking habit affects hospital image.

Majority of smokers believe that the King Fahad specialist hospital's policy toward smoking is moderately strict 31.8% (35/110), whereas 27.3% (30/110) think it is strict and 33.7% (37/110) were between not strict and low strict. 7.3% (8/110) think it is very strict.

Family conflict over smoking, the majority 38.2% (42/110) had conflict sometimes, followed by 18.2% (20/110) said they never had and 18.2% (20/110) also said they always have conflict.

Conflict at work over smoking, the majority 40.9% (45/110) never had conflict, followed by 24.5% (27/110) said they sometimes have conflict and 20% (22/110) rarely have conflict.

When smokers were asked about feeling embarrassment regarding smoking, 31.8% (35/110) always felt embarrassed, 25.5% (28/110) sometimes felt embarrassed, 10.9% (12/110) rarely felt embarrassed, and 18.2% (20/110) never felt non-smokers.

About 67.3% (74/110) of smokers attempted to quit smoking, whereas 32.7% (36/110) did not attempt to quit smoking and mainly by personal effort 57.3% (63/110) least were nicotine patches nicotine gum, smoking cessation clinic.

Table 2 shows a great number of smokers willing to quit, 74.5% (82/110) while the minority 6.4% (7/110) are not willing and 19.1% (21/110) do not know if they want to quit.

Smokers wish that the hospital offers a smoking cessation program 78.2% (86/110) wish there was a program, 10.9% (12/110) do not want a program and same number 10.9% (12/110) were not sure if they wanted a program. Majority of smokers showed how willing they are to join a smoking cessation program 52.7% (58/110) answered they would join such program and 24.5% (27/110) do not want to join and 22.7% (25/110) do not know if they would join.

Graph 1 shows the possible reasons smokers want to quit smoking, the majority of smokers are concerned about their health 84.4%, followed by their friends or family do not want them to smoke 22.7% then they do not like the smell and Affect self-image represent 16.4%. And 15.5% think its too expensive, 14.5% do not want to be more addicts, 11.8% do not want get addicted, and least reason was its not socially accepted 8.2% Figure 1.

**Cross-tabulation**

Out of 350 individuals, 31.4% (110) were smokers and 68.8% (240) were non-smokers when considering the demographic data [Tables 3 and 4] smoking was highly significantly ( $P = 0.000$ ) prevalent among males highest age-range of 35–39 years representing 38.4%.

Among the smokers subjects, a higher percentage of smoking was cited by administrative 45.2% (42), followed

**Table 3: Distribution of smoking pattern by age groups**

Age	Smoke	
	No	Yes
18–24	19 76.0%	6 24.0%
25–29	51 64.6%	28 35.4%
30–34	72 72.0%	28 28.0%
35–39	45 61.6%	28 38.4%
40–44	30 66.7%	15 33.3%
45–49	17 81.0%	4 19.0%
50 Plus	6 85.7%	1 14.3%

Chi-square=5.926,  $P=0.432$ , insignificant

**Table 4: Distribution of smoking pattern by gender**

Gender	Smoke	
	No	Yes
Male	85 49.1%	88 50.9%
Female	155 87.6%	22 12.4%

Chi-square=59.979,  $P=0.000$ , highly significant

**Table 5: Distribution of smoking pattern by work**

Work	Smoke	
	No	Yes
Physician	38 73.1%	14 26.9%
Administrative	51 54.8%	42 45.2%
Allied Health	52 64.2%	29 35.8%
Nurses	65 83.3%	13 16.7%
Other	34 73.9%	12 26.1%

Chi square=17.8,  $P=0.001$ , significant

by Allied health 35.8 % (29), then physicians 26.9% (14) and the least were nurses 16.7 (13), and another field 26.1% (12) significant with  $aP = 0.001$  [Table 5].

As for the marital status, divorced subjects showed a higher percentage than other groups representing 38.5%, as shown in Table 6.

In Table 7, it shows distribution of a number of packs by gender, the majority of female smokers smoke less than half a pack representing 26.9% while the majority of male smokers smoke one pack to two packs representing 88.2%, as shown in Table 3.

**Nonsmokers' information**

In Table 8, when asking non-smokers about how they feel about colleges who smoke, the majority answered it bothers them all the time 47.5% (114/240) while 10.8% (26/240) did not bother them at all.

About 99.8% (218/240) of non-smokers believe that smoking around the hospital affects the hospital's image. About 6.7% (16/240) did not think it affects the hospital's image and 2.5% (6/240) did not know if it affects the image of the hospital.

About 57.5% (138/240) of non-smokers which were the majority answered that they strongly agree that King Fahad Specialist Hospital should have a more strict policy regarding

**Table 6: Distribution of smoking pattern by marital status**

Marital status	Smoke	
	No	Yes
Single	80 71.4%	32 28.6%
Married	152 67.6%	73 32.4%
Divorced	8 61.5%	5 38.5%

Chi-square=0.830,  $P=0.660$ , insignificant

**Table 7: Distribution of number of packs by gender**

Cigarettes pack	Gender	
	Male	Female
N/A	85 35.4%	155 64.6%
Less than half packs	38 73.1%	14 26.9%
Half (1/2) pack to one (1) pack	34 85.0%	6 15.0%
One (1) pack to two (2) packs	15 88.2%	2 11.8%
More than two (2) packs	1 100.0%	0 0.0%

Chi-square=61.9,  $P=0.000$ , highly significant

**Table 8: Non-smokers' information**

Variable	Number (%)	Variable	Number (%)
Feel about colleges who smoke		Wish hospital provides smoking cessation program	
It bothers me all the time	114 (47.5)	Yes	216 (90.0)
It bothers me sometimes	75 (31.3)	No	12 (5.0)
It often bothers me	25(10.4)	I don't know	12 (5.0)
Doesn't bother me at all	26(10.8)		
Do you think smoking affects hospital image		Would you volunteer	
Yes	218 (90.8)	Yes	119 (49.6)
No	16 (6.7)	No	78 (32.5)
I don't know	6 (2.5)	I don't know	43 (17.9)
Do you think KFSH should have more strict policy		Conflict with a smoker colleague	
Strongly agree	138 (57.5)	Always	42 (17.5)
Agree	71 (29.6)	Never	107 (44.6)
Uncertain	17 (7.1)	Sometimes	91 (37.9)
Disagree	14 (5.8)	Do you think smoking affects productivity	
Comfortable advising smokers to quit		Very much	114 (47.5)
Yes	151 (62.9)	Not much	63 (26.3)
No	62 (25.8)	Not sure	28 (11.7)
I don't know	27 (11.3)	Very little	23 (9.6)
		Not at all	12 (5.0)

smoking, 29.6% (71/240) agreed and 7.1% (17/240) were uncertain and the minority disagreed with a 5.8% (14/240).

When non-smokers were asked about how comfortable are they advising a smoker to quit, 62.9% (151/240) felt comfortable advising and 25.8% (62/240) did not feel comfortable and 11.3% (27/240) were not sure.

A high percentage of non-smokers wished there was a smoking cessation program around 90% (216/240) and 5% (5/240) said no and 5% (5/240) were not sure.

A lot of non-smokers are willing to volunteer in a smoking cessation program 49.6% (119/240) and 32% (78/240) were not willing and 17.9% (43/240) don't know if they will volunteer.

When asked about how often do they have a conflict with a smoker college 44.6% (107/240) never had conflict and 37.9% (91/240) sometimes had conflict and 17.5% (42/240) always had conflict.

About 47.5% (114/240) think that smoking affects the productivity of their colleges, whereas 47.5% (114/240) were not much, not sure and very little effect and 5% (12/240) thinks it does not affect productivity.

### MANAGERS QUESTIONNAIRE RESULTS

In Table 9, it shows 93 out of 350 were managers who answered the questionnaire when comparing non-smokers with smokers. When asked about causing trouble, 49.5%

**Table 9: Manager's questionnaire**

Variable	Number (%)	Variable	Number (%)
Compared to non-smokers, do smoker cause trouble?		Compared to non-smokers, are smokers moody?	
All the time	11 (11.8)	All the time	17 (18.3)
Sometimes	46 (49.5)	Sometimes	48 (51.6)
Neutral	29 (31.2)	Neutral	12 (12.9)
Very little	5 (5.4)	Very little	10 (10.8)
Not at all	2 (2.2)	Not at all	6 (6.5)
Compared to non-smokers, are smokers less productive?		Compared to non-smokers, do smoker cause trouble	
All the time	11 (11.8)	All the time	9 (9.7)
Sometimes	32 (34.4)	Sometimes	24 (25.8)
Neutral	21 (22.6)	Neutral	28 (30.1)
Very little	7 (7.5)	Very little	12 (12.9)
Not at all	22 (23.7)	Not at all	20 (21.5)

(46/93) caused trouble sometimes and 31.2% (29/93) believed it was neutral and 2.2%(2/93) believed they do not cause trouble at all.

Moreover, when asked about the productivity of smokers compared to non-smokers, the majority answered sometimes 34.4% (32/93) and 23.7% (22/39) thinks not at all and 11.8% (32/93) all the time.

When comparing smokers and non-smokers in being moody 51.6% (48/93) answered sometimes which was the majority and 6.5% (6/93) answered not at all.

The table presents absenteeism results by manager's opinion. The percentage of absenteeism in smokers had neutral absenteeism than did with non-smokers during

working days 30.1% (28/93) and 25.8% (24/93) think sometimes and 21.5% (20/93) answered that there is no difference at all.

## DISCUSSION

There are no similar studies done in Saudi Arabia in the eastern province regarding the effect of smoking on the working environment and willingness to quit smoking among health-care providers. Most of the previous studies have addressed smoking habits and prevalence among students, general population, and different careers but not on health workers.

The result of our investigation showed that healthcare workers, although aware of the risk of smoking, had a quit prevalent smoking habit.<sup>[6]</sup> The prevalence of smoking among KFSH-D in our study (31.4%) as shown in Table 2, whereas the prevalence in similar studies ranged from 19% to 54% in different countries such as Kuwait, Bahrain, Netherlands, and Greece. For example, our results are comparable to findings reported in two studies, a study done on Tobacco Use among Health Care Workers in Southwestern Saudi Arabia who reported their prevalence of (26.3%) and another study on Prevalence of Smoking Among Health Care Providers in Eastern Province, Saudi Arabia showed the prevalence of 28.4% and mainly higher in males workers than females as.<sup>[6]</sup> In our study, it showed the prevalence of smokers in males are higher than in females with males counting for 50.9% and females 12.4%, as shown in Table 4.

The effect of smoking on productivity was not addressed in any of the studies conducted in Saudi Arabia. However, some international studies, for example, In the United States of America done on the effect of smoking status on productivity loss and results showed current smokers showed the high number in productivity losses in compared to former smokers and non-smokers.<sup>[8]</sup> Another study done among employees at a reservation office of a major US airline about impact of smoking status on workplace absenteeism and productivity results showed that productivity decreased and absenteeism increased among current smokers in compared to former smokers and nonsmokers at the workplace. Productivity among former smokers increases over time toward values seen among never smokers.<sup>[9]</sup>

Moreover, a study done on workplace smoking-related absenteeism and productivity costs in Taiwan that showed an estimate of increased absenteeism from work, male smokers took off an average of 4.36 sick days and male non-smokers took off an average of 3.30 sick days. Female

smokers took off an average of 4.96 sick days and non-smoking females took off an average of 3.75 sick days. The time smokers spent taking smoking breaks amounted to 9 days/year resulting in productivity loss. Increased sick leave costs due to passive smoking.<sup>[10]</sup> Similarly in our study, as shown in Table 9, found variable effect of smoking on work-related issues addressed by their managers, for example, employees being moody was the most addressed issue followed by causing trouble followed by being less productive in means of taking extra break hours to smoke and lastly increase in absenteeism and sick leave requests compared to nonsmoker.

Moreover, regarding quitting smoking, current smokers' willingness to quit smoking in our study was found to be 74.5%, as shown in Table 2. Another study done among University Students in a Western Nigerian State showed the willingness to quit smoking 39.0% and another study done in north central Nigeria also showed a willingness to quit smoking by 39.4%. In all the previous studies and our study showed that the main reason current smokers wanted to quit smoking were that they were concerned about their health. Therefore, smoking cessation clinic and educational program regarding smoking should emphasize about the complication of smoking on health.<sup>[11]</sup>

Most of the smokers attempted to quit smoking 67.3% similarly in a study that was done in western Nigeria university students attempted to quit were 83.3%.<sup>[11]</sup> The results are high in these two studies may be cause of health problem and awareness of smoking complication. This would indicate that many smokers have tried quitting but, unfortunately, they have not succeeded in doing so.

## CONCLUSION

Although most health workers were aware of the complication of smoking, and the effect on working environment smoking prevalence is relatively high among our hospital workers. Most of the smokers tried to quit smoking but they did not succeed due to various reasons.

Current smokers counted for high productivity loss in compared to non-smokers.

There is an importance to developing a smoking cessation program to cover the needs of this disadvantaged population group.

## REFERENCES

1. Anthonisen NR, Skeans MA, Wise RA. The effects of a smoking cessation intervention on 14.5-year mortality: A randomized clinical trial. *Ann Intern Med* 2005;142:233-9.

2. Rigotti NA. Strategies to help a smoker who is struggling to quit. *JAMA* 2012;308:1573-80.
3. Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses---United States, 2000-2004. Available from: <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.html>. [Last accessed on 2017 Sep 26].
4. Pleis JR, Ward BW, Lucas JW. Summary health statistics for U.S. adults: National health interview survey, 2009. *Vital Health Stat* 10 2010;249:1-207.
5. CDC-Fact Sheet-Fast Facts-Smoking and Tobacco Use; 2017. Available from: [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/fast\\_facts/index.html](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.html). [Last accessed on 2017 Sep 26].
6. Al-Mobeeriek A, Al-Zaki A, Al-Duhailan L, Al-Habboubi T. Prevalence of smoking among health care providers in Eastern Province, Saudi Arabia. *Pak Oral Dent J* 2008;28:295-300.
7. Mahfouz A, Shatoor A, Al-Ghamdi B, Hassanein M, Nahar S, Farheen A, *et al.* Tobacco use among health care workers in Southwestern Saudi Arabia. *Biomed Res Int* 2013;2013:960292.
8. Bunn WB 3<sup>rd</sup>, Stave GM, Downs KE, Alvir JM, Dirani R. Effect of smoking status on productivity loss. *J Occup Environ Med* 2006;48:1099-108.
9. Halpern M. Impact of smoking status on workplace absenteeism and productivity. *Tob Control* 2001;10:233-8.
10. Tsai SP, Wen CP, Hu SC, Cheng TY, Huang SJ. Workplace smoking related absenteeism and productivity costs in Taiwan. *Tob Control* 2005;14:i33-7.
11. Babatunde O, Omowaye O, Alawode D, Omede O, Olomofe C, Akinyandenu J. Smoking prevalence, willingness to quit and factors influencing smoking cessation among university students in a Western Nigerian State. *Asian Soc Sci* 2012;8:149-56.

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