

Smoking Behavior, Knowledge and attitudes among Medical Workers in the National Cancer Institute, Cairo University

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Abstract: The aim of this study was to assess smoking behavior of medical workers in the National Cancer Institute (NCI), their knowledge and attitude towards smoking. This is a cross-sectional survey with anonymous self-administered questionnaires for physicians and nurses. It included three sections; 1) demographic data, 2) questions about knowledge of smoking hazards, religious and lawful aspects and 3) questions regarding smoking status and attitude towards quitting and prohibiting smoking in work and public places. Participants were 246; 185 responded (75.2%). Smokers constituted 25.4% of the sample. Responding current smokers were 37. The majority of smokers reported previous trials to quit, mainly due to health concern (73.3%). All workers know that smoking is harmful to health, the majority were positive about the hazard of passive smoking as well. Ever-smokers showed a negative attitude towards total prevention of smoking at workplace; however, current smokers react positively to smoking restriction in work and public places, about 2/3 stop immediately when confronted by a stop smoking sign. Twenty-seven workers (73%) reported less smoking in response to restriction. A large percent (73%) smoke in presence of nonsmokers, however nearly 92% respond to a colleague's demand to stop smoking. It is concluded that smoking remains a common habit among medical works in the NCI in spite of having a good knowledge about its hazards and direct contact with smoking victims. We should search for the suitable approach for this category of smokers to motivate them to quit other than talking about health hazards. [Manar M. Moneer, Nargis A. Labib and Maissa K. Noaman. **Smoking behavior, knowledge and attitudes among medical workers in the national cancer institute, Cairo University.** Journal of American Science, 2011;7(6):1059-1064]. (ISSN:1545-0740). <http://www.americanscience.org>

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1. Introduction

Smoking and the use of other tobacco products has been linked to a wide range of detrimental health outcomes including cancer, cardiovascular disease and respiratory illness (WHO, 2008). The risks affect not only smokers themselves but other individuals who are exposed to second-hand tobacco smoke or "environmental" tobacco smoke (ETS); the latter has been shown to contribute to a number of adverse health effects including increased risk of respiratory and cardiovascular illnesses (WHO, 2007). The Egypt Demographic and Health Survey (EDHS) 2008 (El-Zanaty & Way, 2009) reported a prevalence of use of tobacco products of more than 40 percent of men and less than 1 percent in women. Among men, 35 percent reported smoking cigarettes only while 9 percent said they used other forms of tobacco, in some cases in addition to cigarettes.

It is widely recognized that most smokers attempt to quit smoking many times, but the struggle against the smoking addiction is very difficult and the odds in favor of a successful attempt to quit smoking do not exceed 5% (Hughes et al., 2004).

In their workplace, workers in the National Cancer Institute (NCI), Cairo University are

confronted by a substantial number of patients suffering from oncological conditions directly linked to smoking. This may put a higher burden on these workers more than others working outside the institute concerning smoking habit. This study adopted a questionnaire method to assess the smoking behavior among medical workers in the NCI and to determine their knowledge and attitude towards smoking.

2. Participants and Method

This study involved all medical workers attending the day of interview and accepting participation in the study in all medical departments of the NCI during the year 2008. Anonymous self-administered questionnaires were handed to workers in these departments involving physicians and nurses. A pilot study was conducted on 20 workers to assess the questionnaire (clarity, time consumption and different responses) and it was modified accordingly. The questionnaire includes the following sections; the first part of the questionnaire concerned demographic data and the second part included questions about knowledge about smoking hazards, religious and lawful aspects.

The third part was directed towards current smokers and ex-smokers. It involved questions regarding the number of smoked cigarettes, the date of starting smoking cigarettes, smoking cessation attempts, smoking in work place and smoking in the presence of non-smokers and in the presence of children. The following part was concerned with attitude and behavior towards smoking and restrictions at public and work places. Nicotine dependence was assessed using the heaviness of smoking index which is a short form of Fagerstorm test for nicotine dependence (Heatherton et al., 1989).

Statistical analysis:

Data was analyzed using SPSSwin statistical package version 15. Chi-square test (or Fisher's exact test) was used to examine the relation between qualitative variables. For quantitative data, comparison between two groups was done using student t-test. All tests were two-tailed. A p-value < 0.05 was considered significant.

3. Results

Number of participants was 246; 185 of them responded to the questionnaire (75.2%). Of the respondents, 54.6% were men, 41.6% younger than 30 years. One of the respondents did not complete the questionnaire. Table (1) summarizes the characteristics of respondents. Ever-smokers constituted 25.4% of the sample (n = 47). Current smokers (n = 38) included 2 "Shisha" smokers in addition to the 36 cigarette smokers, and similarly 5 of the 9 former smokers were using "Shisha". Table (2) compares ever-smokers and nonsmokers. It is worth to mention here that the nursing staff interviewed were mainly males (n = 23). Ever-smokers were mainly males (91.5%). Twenty percent of ever-smoker physicians were surgeons.

One of the smokers did not proceed after the questions of current smoking status. Thus, tables (3) and the following show the results obtained from 37 smokers. Age at starting smoking was rather young (19.7 ± 4.3 yrs). Engaging in a new friendship was a trigger to start smoking in nearly 60 percent of smokers.

The majority of smokers reported previous trials to quit smoking, several times in one third of cases. Health concern was the main motive to try to quit smoking habit (73.3%), to improve health or physical activity or as medical advice. The main cause of failure to quit is lacking a solid will (Table 4). Health concern was also the main motive to quit smoking in 7 of the 9 former smokers (77.8%).

All workers know that smoking is harmful to health, the majority were well-acquainted about the hazard of passive smoking as well. There was no

significant difference between ever-smokers and non-smokers concerning health, religious and lawful issues of smoking (Table 5).

As other public places, NCI is considered by law a smoking-free place. Ever-smokers showed negative attitude towards the restriction principle and punishment of outlaws. They encourage assigning special places for smoking in the hospital (Table 6).

Current smokers react positively to smoking restriction in work and public places, about 2/3 stop immediately when confronted by a stop smoking sign. Twenty-seven workers (73%) reported less smoking in response to restriction. A large percent (73%) smoke in presence of nonsmokers, however nearly 92% respond to a colleague's demand to stop smoking (Table 7).

Table 1: Characteristics of Respondents (n = 185)

Age, years (Mean±SD)	34.8±11.1
20-30	77 (41.6%)
31-40	63 (34.1%)
41-50	14 (7.6%)
>50	31 (16.8%)
Gender (Male/Female)	101/84
Marital Status	
Married	125 (67.6%)
Not Married	60 (32.4%)
Work	
Physicians	152 (82.2%)
Nurses	33 (17.8%)
Smoking status	
Current smoker	38 (20.5%)
Former smoker	9 (4.9%)
Never smoker	138 (74.6%)

4. Discussion

The current study revealed that proportion of smoking among medical workers in the National Cancer Institute (NCI) was 25.4%. This is lower than figures reported in the general population (40%) (El-Zanaty & Way, 2009). In 2002, smoking prevalence in Egypt ranged from 18.3% (35% in males), as reported by WHO, to 27.2% (48.5% in males) (Youssef et al., 2002). In 1993, an Egyptian study performed in Ismailia reported a 34.4% prevalence of smoking among physicians (Riskalla et al., 1993). Prevalence in males (42.6%) was comparable while in females (4.8%) was very much higher than the prevalence in general population (< 1%). In the current study, there was a very high proportion of smokers (66.7%) among nursing staff. Those smoking nurses were mainly males, just one female was smoker.

Table 2: Comparison between ever-smokers and nonsmokers concerning demographic characteristics

	Ever Smokers (n = 47)	Non Smokers (n = 138)	p value
Gender			
Male	43 (42.6%)	58 (57.4%)	
Female	4 (4.8%)	80 (95.2%)	< 0.001*
Age, years (Mean±SD)	34.9±12.7	34.7±10.4	0.919
Work			
Physicians	25 (16.4%)	127 (83.6%)	< 0.001*
Nurses	22 (66.7%)	11 (33.3%)	
Marital Status			
Married	35 (28.0%)	90 (72.0%)	
Not Married	12 (20.0%)	48 (80.0%)	0.242

* Statistically significant difference

Table 3: Smoking characteristics in current smokers (n = 37)*

Regularity of smoking	
Daily smoking	34 (92.1%)
Occasional	3 (7.9%)
Age at starting smoking	19.7±4.3 yrs
Trigger	
New Friends	23 (59.5%)
Other triggers	14 (34.2%)
Motive to smoke now	
Stress	15 (35.1%)
To be calm	11 (24.3%)
Concentration	11 (27.0%)
Nicotine dependence of cigarette smokers (n = 36)	
Light	19 (52.8%)
Moderate	15 (41.7%)
Heavy	2 (5.6%)
First cigarette after waking by:	
< 5 min.	6 (16.2%)
6-30 min	11 (29.7%)
31-60 min	8 (21.6%)
>60 min	12 (32.4%)
The habit change by time	
Increased	9 (24.3%)
Decreased	11 (29.7%)
No change	17 (45.9%)
Smoking when ill	12 (32.4%)
Smoking in bed	14 (37.8%)
Smoking in front of children	6 (24.0%)
Caring for warning signs	17 (43.2%)
Cost per month, LE, Median (Range)	100 (10-450)
Having Smoking-related Health Problems	12 (32.4%)

* One participant did not complete the questionnaire

Table 4: Trials of Quitting Smoking in current smokers

Trying to Quit Previously	30/37 (81.1%)
Motive to Try	
Health issues	22 (73.3%)
Others	8 (26.7%)
Number of quit attempts	
Once	6 (20.0%)
Twice	9 (30.0%)
3 times	5 (15.7%)
>3 times	10 (33.3%)
Longest time of successful quitting	
< 1 day	4 (13.3%)
A week	4 (13.3%)
A month	12 (40.0%)
A year	7 (21.2%)
> 1 year	3 (7.9%)
Cause of Failure	
Weak will	9 (30.0%)
Loss of concentration	7 (23.3%)
Headache, irritability	4 (13.3%)
Others	10 (33.3%)

Table 5: Knowledge of smoking habit among medical workers in the NCI

Statements	Ever Smokers (n = 46), No. (%)	Non Smokers (n = 138), No. (%)	p value
Smoking is harmful to health	47 (100)	138 (100)	1.000
Passive smoking is harmful to health	44 (93.6)	136 (98.6)	0.105
Maternal smoking during pregnancy increases the risk of pregnancy-related diseases and congenital anomalies	46 (97.7)	132 (95.7)	0.250
Passive smoking increases the risk of lung disease in smokers' children	43 (91.5)	131 (94.9)	0.276
Knowing about religious "Fatwa" about smoking	39 (83.0)	170 (91.9)	0.101
Knowing about the Law prohibiting smoking in health facilities	40 (85.1)	103 (74.6)	0.139

Table 6: Opinion of medical workers in the NCI about smoking restriction in workplace

	Ever Smokers (n = 46), No. (%)	Non Smokers (n = 138), No. (%)	p value
The presence of special places for smoking	22 (46.8%)	32 (23.2%)	0.002
Smoking during rest hours in a special place	11 (23.4%)	14 (10.1%)	0.022
Total prevention of smoking at work place	8 (17.0%)	66 (47.8%)	< 0.001
Setting up smoking regulations with punishment	6 (12.8%)	56 (40.6%)	< 0.001
There should be no smoking restrictions at work	6 (12.8%)	1 (0.7%)	< 0.001

Table 7: Attitude of current smokers towards smoking restriction in work and public place (n = 37)

Reaction to "No Smoking" sign while smoking	
Stop immediately	25 (67.6%)
Move to another place to smoke	8 (21.6%)
Continue to smoke	3 (8.1%)
Wait to be asked to stop	1 (2.7%)
Smoking in the presence of non-smokers	27 (73.0%)
Smoking at work-place	29 (78.4%)
Reaction to smoking restriction	
Smoke less	27 (73.0%)
Try to Quit	3 (8.1%)
No change	7 (18.9%)
Response to a colleague's demand not to smoke	
Respond	34 (91.9%)
Ignore	3 (8.1%)
Reaction to institute support to quit smoking (n = 36)	
Respond	32 (88.9%)
Ignore	4 (11.1%)

Effect of working with cancer patients, with a considerable percentage suffering from smoking-related fatal diseases, was not an enough motive to lower the prevalence of smoking to a minimum. Very high percentage of nurses (66.7%) and female physicians (4.8%), relative to the general population, still stick to this habit. Nevertheless, the main motive to quit smoking in former smokers and to try to quit among current smokers is health concern (73.3%). We hope more of the current shift to the former side in future.

This hope is supported by high frequency of quitting trials (81.1%). The main obstacle is lack of dominant will to stop. Impression of loss of concentration, headache and irritability were reported as causes of failure (36.7%) despite the fact that nicotine dependence is mostly light to moderate (94.5%).

Twenty percent of ever-smoker physicians in the current study were surgeons. A Chinese study reported a high smoking prevalence (45.2%) among male surgeons (Yao et al., 2009). Another study in China (Zhou et al., 2010) reported smoking rate (26%) among physicians of all specialties comparable to ours and other studies in this country (Jiang et al., 2007; Cui et al., 2007). A polish study, on the contrary reported lower prevalence of 11.3% (Czajkowska-Malinowska et al., 2008). They reported that 25.1% of physicians were ex-smokers. A Greek study showed an overall prevalence of smoking of 38.6% among physicians (Sotiropoulos et al., 2007).

Health professionals in Bosnia and Herzegovina had a high rate of smoking among physicians (40%) and nurses (51%), compared to other European countries (Hodgetts et al., 2004). Italian general practitioners in 2000 recorded smoking rate of 28.3% (Pizzo et al., 2003). In the Netherlands, smoking

prevalence was 25% in physicians and 44% in nurses (WHO, 1997). In the United States, while nurses had a smoking prevalence of 18% in 1991, physicians had a low prevalence of 3.3% (Nelson et al., 1994).

A postal survey of smoking habits among 1,623 Finnish physicians revealed a prevalence of regular smoking of 10% in males and 6%. This study showed a decrease of daily smoking from 24% in males and 17% in females along 2 decades (Jormanainen et al. 1997).

The current study proved the expected fact that the majority of medical workers were well oriented about the health hazards of active and passive smoking on the smoker and his family. Also, religious opinion that smoking is prohibited was a clear fact for 83% of smokers, as was the law restricting smoking in health facilities. Although physicians and nurses do not lack necessary knowledge to refuse smoking habit, but unfortunately this was not enough. This was reflected in their opinion about smoking restriction in workplace; 17% of ever-smokers refuse total smoking prevention.

However, the attitude towards smoking restriction in work and public places is rather encouraging. The majority of current smokers stops immediately in response to a "No Smoking" sign (67.6%) or move to other place (21.6%). Smoking restriction drives 73% of smokers to smoke less. Most of smokers submit to colleagues' demand to stop smoking. These chasing efforts have to continue to fruit more trend towards quitting. Tough efforts are needed as a majority still did not mind to smoke in presence of nonsmokers (73%) and in workplaces (78.4%).

Physicians should be influential role-models to the general population. The high smoking prevalence provides an unhealthy role-model for patients. Near

90% of medical workers were ready to respond to the institutional support to quit smoking.

Constraints: a large number of smokers especially females did not easily accept participation. Most of the non-respondents were smoking physicians.

In conclusion, smoking is still a common habit among physicians and nurses working in the NCI in spite of having a good knowledge about its hazards and direct contact with smoking victims. We should search for the suitable approach for this category of smokers to motivate them to quit other than talking about health hazards.

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