

Effect of physicians' smoking status on their knowledge, attitude, opinions and practices of smoking cessation in a University Hospital, in Egypt

Original
Article

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ABSTRACT

Background: The tobacco epidemic is one of the biggest public health threats. Smoking prevalence and smoking cessation intentions among physicians vary from a country/community to another. Recently, a global reduction in the rates of smoking among healthcare providers is observed.

Aim: This study aims to describe the effect of physicians' smoking status on their knowledge, attitude, opinions, and practices of smoking cessation in patients in a Tertiary Healthcare University Hospital in Cairo, Egypt.

Materials and Methods: A cross-sectional study was carried out at four specialized hospitals in a Tertiary Healthcare University Hospital in Cairo. Anonymous questionnaires included sociodemographic, occupational data, history of smoking, smoking-related knowledge, attitude, and practices of smoking cessation counselling.

Results: The study included 521 physicians, 26.5% of physicians have never received training on smoking-cessation approaches. The prevalence of current smoking among the studied physicians was 21.5%. Only 45.5% of smoking physicians have never smoked in front of a patient and 27.7% have no compliance to the smoke-free policy in nonsmoking areas. Smoking physicians were significantly less likely than nonsmokers to identify the effect of passive smoking on the heart, lungs, and on neonates (67.9, 58.9, and 53.6% compared with 83.6, 77, 60, and 56.7%, respectively). A lower percentage of smoking physicians (34.8%) agreed that smoking physicians are less likely to convince patients to quit smoking compared with about 60% of nonsmoking physicians. The practices related to smoking cessation as reported by both smokers and nonsmokers were inadequate.

Conclusion: Smoking status significantly affects the knowledge, attitude, and some practices of physicians related to smoking cessation counselling. Training on smoking cessation should be enforced during undergraduate and postgraduate studies of physicians.

Received: 16 February 2017, **Accepted:** 19 September 2017

Key Words: Practices, physicians, smoking cessation, university hospital.

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ISSN: 0013-2446, Vol. 92, No.2

INTRODUCTION

According to the WHO, the tobacco epidemic is one of the biggest public health threats the world has ever faced, killing around six million people a year. More than five million of those deaths are the result of direct tobacco use, while more than 600 000 are the result of nonsmokers being exposed to second-hand smoke. Nearly 80% of more than one billion smokers worldwide live in low-income and middle-income countries, where the burden of tobacco-related illness and death is heaviest^[1]. Smoking is a worldwide health risk where healthcare providers play a crucial role in preventing smoking by being a role model to smoking patients^[2].

Recently, a global reduction in the rates of smoking among healthcare providers is observed, while in some

countries the rates of smoking among healthcare providers are as high as the general population^[3].

Smoking prevalence and smoking cessation intentions among physicians vary from a country/community to another. A review of studies carried out in developing countries and published through the years 1987–2010 showed that the highest smoking prevalence among physicians was in central eastern Europe (37%), then Africa (29%), central and south America (25%) and the least was in Asia (17.5%), being more prevalent with low quitting rates in developing countries than developed ones^[4]. About 40% of the physicians participating in a study in Makkah mentioned that they spent 3–5 min counseling their patients about smoking^[5]. Another study in Saudi Arabia have shown that 14.3% is the prevalence of current smoking among their study sample. Among those, 90% were interested to quit smoking and 66% had actually tried

before to quit. Those results represent a barrier in smoking cessation counselling^[6].

To our knowledge, there are no enough studies in Middle East and Egypt that investigated the effect of physicians' smoking status on patients' counseling for smoking cessation. This study aims to describe the effect of physicians' smoking status on their knowledge, attitude, opinions, and practices of smoking cessation with patients in a Tertiary Healthcare University Hospital in Cairo, Egypt.

MATERIALS AND METHODS

The present study is a cross-sectional one that included physicians from four departments specialized in a Tertiary Healthcare University Hospital in Cairo, Egypt. Those Departments are Internal Medicine, Surgery (including different specialties of internal medicine and surgery), Pediatrics, Dermatology, and Gynecology and Obstetrics.

A sample of 312 calculated using smoking prevalence among physicians in Africa^[4] equals to $29 \pm 5\%$ and 95% confidence interval. The sample was calculated using the Epi Info 2002 program (Centers for Disease Control and Prevention, Atlanta, Georgia, US). The sample was increased to reach 512 participants and collected as a convenience one. Equal number of participants was targeted from each department, but practically, data collection faced some obstacles due to the workload or uncooperation of some staff members. So, the final number of participants was not equal.

The data collection tool was based on the instruments developed by previous similar studies^[7, 8]. Data were collected at the beginning of 2016 by means of an anonymous questionnaire (consisted of 44 questions) targeting information about sociodemographic and occupational data (age, sex, specialty, years of medical experience, previous training on smoking cessation), smoking status and history of smoking (type and frequency of smoking, starting age, previous quitting attempts). In addition, smoking-related knowledge (health hazards of active and passive smoking) was asked about using (correct/incorrect/do not know responses), attitude (agree/disagree/unsure), and practices of smoking cessation counselling (always, sometimes, rarely, never). Current smoker includes any smoker even occasional ones, while former smokers are those who quit smoking at least 1 year ago.

Ethical considerations

Approval was obtained from the Research Ethics Committee and consent from the participants after

explaining the study rationale and purpose to the study participants, and ensuring them confidentiality of data.

Statistical analysis

Data were coded, verified, and analyzed using the statistical package for the social sciences (SPSS), version 20 (IBM Corp., New York, New York, USA)^[9]. The study participants were divided into two groups 'current smokers' and 'nonsmokers'. The nonsmokers group included never smokers and those who quit smoking because the latter group was relatively small in number to avoid obstacles in analysis and data presentation.

Descriptive statistics included frequency and percentage for non-numerical data. χ^2 was used as the test of significance with a P-value of less than 0.05 considered to be statistically significant.

RESULTS

The current study included 521 physicians (335 men and 186 women) with 68.1% below 30 years of age. More than half of the studied sample (58.7%) had no postgraduate degree. The studied group was recruited from different specialties of the university hospital; 35.3% from surgery, 29.8% from internal medicine, 13.1% from pediatrics, 12.5% from gynecology, 6.1% from dermatology, and house officers represent 3.2% of the sample. The majority of the studied physicians (62.2%) practiced in the medical field for less than 5 years. The prevalence of current smoking among the studied physicians was 21.5%, while 8.3% quit smoking, and 70.2% never smoked. Additionally, 26.5% of physicians had no training on smoking-cessation approaches; only 32.4% had formal training during medical school; 20.9% had formal training during specialization programs; and 20.2% had training through special conferences, symposia, or workshops (Fig. 1).

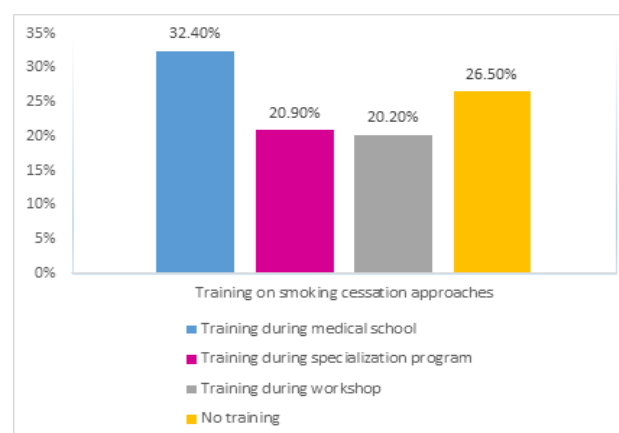


Fig. 1: Timing and vehicle of training on smoking cessation received by the studied physicians

There was a statistically significant difference in smoking status as regards sex, age, and latest education where 29.9% of current smokers was men compared with only 6.5% among women ($P<0.001$). Also, the majority of current smokers were among the age groups of between 30 and 45 years and more than 45 years (38.3 and 30.4%, respectively) compared with only 14.6%

among the age group of less than 30 years ($P<0.001$). Additionally, the higher percent of current smokers were among physicians with master's and MD degrees (31.0 and 28.8%, respectively) compared with only 15.4% among physicians with only bachelor's degree ($P<0.001$). There was no statistically significant difference in smoking status by specialty (Table 1).

Table 1: Distribution of physicians according to their smoking status, University Hospital in Cairo, Egypt, 2016

| | Physicians | | Total (n=521) No.(%) | Test of significance | |
|-------------------|-----------------------------------|---------------------------------------|----------------------------|----------------------|-------|
| | Non-smokers (n= 409) No.(%) | Current Smokers (n= 112) No.(%) | | X ² | p |
| Gender | | | | | |
| Male | 235 (70.1) | 100 (29.9) | 335 (64.3) | 38.802 | 0.000 |
| Female | 174 (93.5) | 12 (6.5) | 186 (35.7) | | |
| Age (years) | | | | | |
| <30 | 303 (85.4) | 52 (14.6) | 355 (68.1) | 32.202 | 0.000 |
| 30-45 | 74 (61.7) | 46 (38.3) | 120 (23.1) | | |
| >45 | 32 (69.6) | 14 (30.4) | 46 (8.8) | | |
| Latest education | | | | | |
| Bachelor | 259 (84.6) | 47 (15.4) | 306 (58.7) | 16.693 | 0.000 |
| Master | 98 (69) | 44 (31) | 142 (27.3) | | |
| MD | 52 (71.2) | 21 (28.8) | 73 (14) | | |
| Specialty | | | | | |
| Surgery | 136 (73.9) | 48 (26.1) | 184 (35.3) | 8.536 | 0.128 |
| Internal Medicine | 122 (78.7) | 33 (21.3) | 155 (29.7) | | |
| Dermatology | 27 (84.4) | 5 (15.6) | 32 (6.1) | | |
| Gynecology | 49 (75.4) | 16 (24.6) | 65 (12.5) | | |
| Pediatric | 61 (89.7) | 7 (10.3) | 68 (13.1) | | |
| House officer | 14 (82.4) | 3 (17.6) | 17 (3.3) | | |

Regarding the distribution of smoker physicians according to their smoking habits, the majority of them (52.7%) started to smoke at the age of between 20 and 30 years with 69.6% having smoked on a daily basis and 33.0% of them had 5–10 years of smoking. The highest percentage (31.3%) used to smoke less than five cigarettes per day. Only 45.5% of smoking physicians have never smoked in front of a patient; 70.5% have smoked during shift; and 27.7% have no compliance to the smoke-free policy in

non-smoking areas. The reasons to smoke for most of them were to reduce/relieve work-related stress and improve sociability among peers (66.1 and 48.2%, respectively). Only 45.5% have attempted to quit smoking and the most common reasons for not trying to quit were fear of loss of way to handle stress and cravings (52.7 and 50.9%, respectively). However, most of the studied group (77%) thought that their tobacco use has negatively affected their health in any way (Table 2).

Table 2: Distribution of smoker physicians according to their smoking habits, University Hospital in Cairo, Egypt, 2016

| Characteristics | Smoking physicians (n=112) No. (%) |
|--|---------------------------------------|
| Age of smoking start (years) | |
| <20 | 44 (39.3) |
| 20-30 | 59 (52.7) |
| >30 | 9 (8) |
| Mean \pm SD | 22 \pm 5 |
| Frequency of smoking | |
| Occasionally | 17 (15.2) |
| Up to 3 times a week | 5 (4.5) |
| 4-5 times a week | 12 (10.7) |
| Daily | 78 (69.6) |
| Estimated no. of cigarettes smoked per day | |
| <5 | 35 (31.3) |
| 5-10 | 32 (28.6) |
| 11-15 | 29 (25.9) |
| 16-20 | 12 (10.7) |
| >20 | 4 (3.6) |
| Frequency of smoking in front of patient | |
| Never | 51 (45.5) |
| Rarely | 31 (27.7) |
| Sometimes | 28 (25) |
| Always | 2 (1.8) |
| Smoking during shift | 79 (70.5) |
| Good compliance to smoke-free policy | 81 (72.3) |
| Attempted to quit smoking | 51 (45.5) |
| Succeeded to quit smoking | 9 (8.3) |
| Reason for smoking | |
| It reduces/relieves stress-related work | 74 (66.1) |
| It improves sociability among peers | 54 (48.2) |
| It enhances memory and alertness | 36 (32.1) |
| It improves skills and performance | 28 (25) |
| It keeps my weight down | 23 (20.5) |
| Reasons for NOT trying to quit smoking | |
| Fear of loss of way to handle stress | 59 (52.7) |
| Cravings | 57 (50.9) |
| Fear of nicotine withdrawal symptom | 45 (40.2) |
| Discouragement from previous failure to quit smoking | 36 (32.1) |
| Fear of risk of gaining weight | 16 (14.3) |
| Fear of loss of social relations | 14 (12.5) |
| The high cost of medicines used for quitting | 12 (10.7) |
| Tobacco use negatively affect health | |
| No | 8(7.1) |
| Yes | 75(77) |
| Not sure | 29(25.9) |

Regarding the knowledge of studied physicians toward smoking, nonsmokers have better knowledge. It is shown in Table 4 that higher percentages of nonsmokers had correct knowledge about the effects of active and passive smoking on lungs and heart diseases of both adults and children (P value shows statistical difference). More nonsmokers also had correct knowledge

about the risk of passive smoking to children's health regarding lower respiratory tract illnesses (P=0.016) and neonatal death (P=0.013). About 72% of nonsmokers, as well, agreed that maternal smoking during pregnancy increases the risk of sudden infant death syndrome compared with 54.5% of smokers (P=0.002) (Table 3).

Table 3: Knowledge of physicians hazards of smoking in relation to their smoking status, University Hospital in Cairo, Egypt, 2016

| Knowledge | Physicians | | Total (n=521) No.(%) | Test of significance | |
|--|----------------------------------|--------------------------------------|----------------------------|----------------------|--------|
| | Non-smokers (n=409) No.(%) | Current Smokers (n=112) No.(%) | | X ² | P |
| Active smoking increases the risk of ischemic heart disease among smokers | | | | | |
| Correct | 342 (83.6) | 76 (67.9) | 418 (80.2) | 14.502 | 0.001* |
| Don't know | 66 (16.1) | 36 (32.1) | 102 (19.6) | | |
| Incorrect | 1 (0.2) | 0 | 1 (0.2) | | |
| Passive smoking increases the risk of lung disease in non-smoking adults | | | | | |
| Correct | 315 (77) | 66 (58.9) | 381 (73.1) | 14.993 | 0.001* |
| Don't know | 93 (22.7) | 45 (40.2) | 138 (26.5) | | |
| Incorrect | 1 (0.2) | 1 (0.9) | 2 (0.4) | | |
| Passive smoking increases the risk of heart disease in non-smoking adults. | | | | | |
| Correct | 246 (60.1) | 52 (46.4) | 298 (57.2) | 6.796 | 0.031* |
| Don't know | 151 (36.9) | 56 (50) | 207 (39.7) | | |
| Incorrect | 12 (2.9) | 4 (3.6) | 16 (3.1) | | |
| Passive smoking increases the risk of lower respiratory tract illnesses in exposed children. | | | | | |
| Correct | 285 (69.7) | 62 (55.4) | 347 (66.6) | 8.23 | 0.016* |
| Don't know | 118 (28.9) | 47 (42) | 165 (31.7) | | |
| Incorrect | 6 (1.5) | 3 (2.7) | 9 (1.7) | | |
| Neonatal death is associated with passive smoking | | | | | |
| Correct | 232 (56.7) | 47 (42) | 279 (53.6) | 8.512 | 0.013* |
| Don't know | 150 (36.7) | 58 (51.8) | 208 (39.9) | | |
| Incorrect | 27 (6.6) | 7(6.3) | 34 (6.5) | | |
| Maternal smoking during pregnancy increases the risk of sudden infant death syndrome | | | | | |
| Correct | 294 (71.9) | 61 (54.5) | 355 (68.1) | 12.695 | 0.002 |
| Don't know | 108 (26.4) | 49 (43.8) | 157 (30.1) | | |
| Incorrect | 7 (1.7) | 2 (1.8) | 9 (1.7) | | |

*: Significant at $p < 0.05$

Regarding the attitude of the studied physicians toward smoking, the majority of nonsmokers (80.2%) believed that health professionals should set a good example by not smoking compared with 55.4% of smokers ($P<0.001$). However, 60.9% of nonsmokers thought that patient's chances of quitting smoking are increased if a health professional advises him or her to quit compared with 48.2% of smokers ($P=0.039$). Additionally, most of

nonsmoking physicians agreed that health professionals should routinely ask about their patients smoking habits and should routinely advise their patients to quit smoking (77.8 and 77%, respectively) compared with (55.4 and 56.3%, respectively) of smokers ($P<0.001$). However, 59.9% of nonsmokers agree that health professionals who smoke are less likely to advise people to stop smoking compared with 34.8% of smokers ($P<0.001$, Table 4).

Table 4: Attitude of physicians towards smoking cessation in relation to their smoking status, University Hospital in Cairo, Egypt, 2016

| | Physicians | | | Test of significance | |
|---|------------------------------------|--|-----------------------------|----------------------|--------|
| | Non-smokers (n= 409) No. (%) | Current Smokers (n= 112) No. (%) | Total (n=521) No. (%) | X ² | P |
| Health professionals should set a good example by not smoking | | | | | |
| Agree | 328 (80.2) | 62 (55.4) | 390 (74.8) | 33.604 | 0.000* |
| Unsure | 75 (18.3) | 41 (36.6) | 116 (22.3) | | |
| Disagree | 6 (1.5) | 9 (8) | 15 (2.9) | | |
| Patient's chances of quitting smoking are increased if a health professional advises him or her to quit | | | | | |
| Agree | 249 (60.9) | 54 (48.2) | 303 (58.1) | 6.49 | 0.039* |
| Unsure | 137 (33.5) | 52 (46.4) | 189 (36.3) | | |
| Disagree | 23 (5.6) | 6 (5.4) | 29 (5.6) | | |
| Health professionals should routinely ask about their patients smoking habits | | | | | |
| Agree | 318 (77.8) | 62 (55.3) | 380 (73) | 22.358 | 0.039* |
| Unsure | 86 (21) | 47 (42) | 133 (25.5) | | |
| Disagree | 5 (1.2) | 3 (2.7) | 8 (1.5) | | |
| Health professionals should routinely advise their patients to quit smoking | | | | | |
| Agree | 315 (77) | 63 (56.2) | 378 (72.6) | 20.338 | 0.000* |
| Unsure | 86 (21) | 47 (42) | 133 (25.5) | | |
| Disagree | 8 (2) | 2 (1.8) | 10 (1.9) | | |
| Health professionals who smoke are less likely to advise people to stop smoking | | | | | |
| Agree | 245 (59.9) | 39 (34.8) | 284 (54.5) | 25.305 | 0.000* |
| Unsure | 117 (28.6) | 59 (52.7) | 176 (33.8) | | |
| Disagree | 47 (11.5) | 14 (12.5) | 61 (11.7) | | |

*: Significant at $p < 0.05$

Regarding the reported practices of smoking-cessation counseling, practices in both groups were inadequate. Nonsmokers showed poor practices regarding explaining the

consequences of smoking on health and teaching patients about methods of quitting. The difference between both groups were nonsignificant ($P>0.05$, Table 5).

Table 5: Reported practice of physicians regarding smoking cessation counseling in relation to their smoking status, University Hospital, Cairo, Egypt, 2016

| | Physicians | | | Test of significance | |
|--|------------------------------------|--|-----------------------------|----------------------|--------|
| | Non-smokers (n= 409) No. (%) | Current Smokers (n= 112) No. (%) | Total (n=521) No. (%) | X ² | P |
| I ask patients if they smoke | | | | | |
| Never | 29 (7.1) | 10 (8.9) | 39 (7.5) | 4.502 | 0.216 |
| Rarely | 33 (8.1) | 8 (7.1) | 41 (7.9) | | |
| Sometimes | 113 (27.6) | 41 (36.6) | 154 (29.5) | | |
| Always | 234 (57.2) | 53 (47.3) | 287 (55.1) | | |
| I explain to my patients the consequences of smoking on one's health | | | | | |
| Never | 30 (7.3) | 8 (7.1) | 38 (7.3) | 5.466 | 0.14 |
| Rarely | 39 (9.5) | 5 (4.5) | 44 (8.4) | | |
| Sometimes | 164 (40.1) | 39 (34.8) | 203 (39) | | |
| Always | 176 (43.1) | 60 (53.6) | 236 (45.3) | | |
| I encourage/challenge my patients to quit smoking | | | | | |
| Never | 27 (6.6) | 11 (9.8) | 38 (7.3) | 3.772 | 0.289 |
| Rarely | 40 (9.8) | 16 (14.3) | 56 (10.7) | | |
| Sometimes | 139 (34) | 37 (33) | 176 (33.8) | | |
| Always | 203 (49.6) | 48 (42.9) | 251 (48.2) | | |
| I teach my patients possible methods on how to quit smoking | | | | | |
| Never | 57 (13.9) | 15 (13.4) | 72 (13.8) | 3.414 | 0.333 |
| Rarely | 109 (26.7) | 22 (19.6) | 131 (25.1) | | |
| Sometimes | 131 (32) | 36 (32.2) | 167 (32.1) | | |
| Always | 112 (27.4) | 39 (34.8) | 151 (29) | | |
| Interventions do you use to help your patients stop smoking | | | | | |
| Counselling only | 274 (67) | 68 (60.7) | 342 (65.6) | 6.225 | 0.000* |
| Traditional remedies | 86 (21) | 17 (15.2) | 103 (19.8) | | |
| Self- help materials | 166 (40.6) | 44 (39.3) | 210 (40.3) | | |
| Medications | 148 (36.2) | 29 (25.9) | 177 (34) | | |

*: Significant at $p < 0.05$

Regarding the opinions of physicians about the effects of smoking status of physicians on smoking-cessation counseling practices, 38.1% of nonsmoking physicians thought that smoking affects the way they counsel their patients to quit smoking in comparison to only 29.5% among smoking

physicians ($P < 0.001$). In addition, 72.6% of nonsmoking physicians thought that it is less likely to convince patients to quit smoking if the counselor is a smoker in comparison to only 30.4% among smoking physicians ($P < 0.001$, Table 6).

Table 6: Physicians' opinions of effects of smoking status of physicians on smoking-cessation counseling

| | Physicians | | Total (n=521) No. (%) | Test of significance | |
|--|-----------------------------------|---------------------------------------|-----------------------------|----------------------|--------|
| | Non-smokers (n= 409) No (%) | Current Smokers (n= 112) No (%) | | X ² | P |
| Does (your) smoking affect the way you counsel your patients to quit smoking? | | | | | |
| No | 60(14.7) | 37(33) | 97(18.6) | 19.584 | 0.000* |
| Yes | 156(38.1) | 33(29.5) | 189(36.3) | | |
| Not sure | 193(47.2) | 42(37.5) | 235(45.1) | | |
| Are you less likely to convince patients to quit smoking if you are a smoker? | | | | | |
| No | 47(11.5) | 16(14.3) | 63(12.1) | 81.459 | 0.000* |
| Yes | 297(72.6) | 34(30.4) | 331(63.5) | | |
| Not sure | 65(15.9) | 62(55.4) | 127(24.4) | | |
| Does counseling on direct health harms of smoking helps with smoking cessation among your patients? | | | | | |
| No | 56(13.7) | 29(25.9) | 85(16.3) | 17.202 | 0.000* |
| Yes | 275(67.2) | 52(46.4) | 327(62.8) | | |
| Not sure | 78(19.1) | 31(27.7) | 109(20.9) | | |
| Does counseling on health harms of passive smoking helps with smoking cessation among your patients? | | | | | |
| No | 50(12.2) | 14(2.5) | 64(12.3) | 8.241 | 0.016* |
| Yes | 253(61.9) | 54(48.2) | 307(58.9) | | |
| Not sure | 106(25.9) | 44(39.3) | 150(28.8) | | |
| Do you think counseling family members of your patients on health harms of second hand smoke helps with their smoking cessation? | | | | | |
| No | 39(9.5) | 14(12.5) | 53(10.2) | 7.828 | 0.020* |
| Yes | 236(57.7) | 48(42.9) | 284(54.5) | | |
| Not sure | 134(32.8) | 50(44.6) | 184(35.3) | | |

*: Significant at $p < 0.05$

DISCUSSION

The frequency of current smokers among physicians in the present study is 21.5% where 29.9% of male physicians and 6.5% of female physicians were current smokers. Those rates were higher than a study in Kasr Elaini Hospitals which stated that the prevalence of current smoking among male physicians was 12.4% and less than 1% among female physicians^[10]. Another study carried out in Bahrain has shown that 8.6% of the studied physicians were smokers (20.0% among men and 3.0% among women). The low frequency of smoking among women is attributed to the cultural factors in the Middle East community where female smoking is considered a stigma^[11]. Almost 15% of smokers are daily smokers (70% of the whole studied population were daily smokers), while in Bahrain 2.1% of the physicians smoked daily^[11]. Among current cigarette smokers, the mean initiation age was 22 years and the average number of cigarettes smoked per day was 15.

Discrepancies are shown between the frequency of smoking among male physicians in the current study and other studies: Canada (8%)^[12], Switzerland (12.6%)^[13] and Japan (16.2%)^[14]. This can be explained by the difference in the definition of smoking where our study includes smokers even occasionally, while those studies included only daily smokers.

This rate is close to that reported among the general population in Alexandria (27.2%)^[15]. While it is much less than the prevalence of current smokers reported among physicians in Urban Family Medicine Centers in Alexandria (51.1%) [7], it is higher than the rate reported among family practice centers in Suez Canal (5.3%)^[16]. The low rate of the last study may be explained by its small sample size.

The prevalence of smoking among physicians varies worldwide from 28.3% among Italian general practitioners in 2000^[17] to 63% among Russian male physicians and 12% of women^[18], while in Japan it was 27.1% for men

and 6.8% for women^[19]. A study conducted among family medicine physicians and nurses in Bosnia and Herzegovina in 2002 showed that ~45% of the studied sample were currently smoking^[20].

The current study has shown that 73.5% of the studied sample had previous training on smoking cessation approaches whether during medical schools, specialization programs, conferences, or during workshops. This figure is compared with only 30% of primary healthcare personnel in Alexandria^[7], and 50% of nurses and 43% of doctors in Bosnia^[20]. At the same time, the current study showed that the correct knowledge about health risks of both active and passive smoking ranges from 53.6 to 80.2% and 19.6 to 39.9% of the studied sample were unsure about the correct answers, respectively. This reflects the need of applying a more effective training on smoking cessation approaches.

A study in Kasr Elaini Hospitals has shown that 90% of the healthcare providers included in their study (physicians, nurses, and employees) correctly responded that passive smoking is a significant cause of tobacco-related diseases' with significant difference between smokers and nonsmokers (who have better knowledge)^[10]. Nearly 80% of nonsmoking physicians and 55% of currently smoking ones agreed that health professionals should set a good example by not smoking. A positive attitude is more prevalent among nonsmokers. Fifty-five percent of smoking physicians had never smoked in front of patients. In Alexandria, 45.5% of their sample had a negative attitude that smoking is a personal matter and can be performed at any time and place^[7].

The current study has shown that nearly 58% of the studied sample (60.9% of nonsmokers and about 48% of current smokers) agreed that patient's chances of quitting smoking are increased if a health professional advises him or her to quit. In Alexandria, almost similar results were mentioned, 65% of the healthcare personnel (71% of nonsmokers and 57% of smokers)^[7]. In the present study, 45.5% had attempted before to quit smoking and 8.3% had successfully quit it. The willingness to quit (70%) is much higher than the attempt to quit (46%) as reported by Ashton and Stroom^[21]. In Asia, more than 84% of current smokers wanted to quit, and 74.7% had made a recent serious attempt to do so^[22]. In Armenia and China, smokers were less likely to counsel patients to quit^[23,24].

Healthcare workers are generally foreseen to be role models to the surrounding population. Special concerns are given to their lifestyle, such as nutrition, exercise, and smoking status^[25]. In the present study, 75% of the studied sample agreed that health professionals should set a good example by not smoking. This proportion was higher than that reported in Alexandria (56.4%)^[7].

Inquiring about smoking cessation practices in the present study, it was shown that 92.7% of the studied sample explained to their patients the consequences of smoking on one's health; of them 45.3% always do that. In addition, 48.2% of the sample were always encouraging

their patients to quit smoking. On the contrary, the results obtained from a study carried out in Alexandria showed that 64.1% of primary healthcare workers were routinely advising their smoking patients to quit smoking^[7]. This difference may be explained by the fact that the sample in Alexandria included nurses (in addition to physicians) who have more time for giving health education messages, unlike physicians. About 85% of the physicians in our study claimed that they always or sometimes asked their patients about their smoking status. In Suez canal^[16] and El-Kasr El-Aini Hospital^[10] in Egypt, 60 and 70%, respectively, asked about the patients' smoking status, while 36 and 74%, respectively advised patients to stop smoking. In a British study^[26], physicians had a positive attitude toward advising patients to quit.

A Russian study stated that health professionals who are smokers are less likely to share in smoking cessation activities or campaigns^[18]. This supports the results of the present study, where 54.5% agreed that health professionals who smoke are less likely to advise people to stop smoking. This result is much less than that obtained in Alexandria (81.4%)^[7].

The WHO stated that every health professional should play a role in smoking cessation, for example, asking about tobacco use, assessing willingness to quit, advising quitting, and further referring and arranging for cessation services^[25].

Hazards of both active and passive smoking are well perceived by nonsmokers than smokers in the current study ($P < 0.001$). Similarly, an Egyptian study has shown that nonsmokers had better perception for smoking hazards^[27]. In general, nonphysician population, nonsmokers perceive hazards of smoking better than smokers^[28].

About 55% of smoking physicians in the current study admitted that they smoke in front of the patient. Similarly, 51% of smoker physicians in Senegal reported smoking in front of them^[29].

About half (45.5%) of the smoking physicians have attempted quitting smoking before. A similar study carried out in 1997 among physicians of the same hospitals showed higher rate (66%)^[30].

Most of the study group (74.9%) believe that 'Health professionals should set a good example by not smoking', while only 58% agreed that 'patient's chances of quitting smoking are increased if a health professional advises him or her to quit'. On the contrary, a study in Bosnia and Herzegovina, showed better results, where 80% of the interviewed physicians and nurses agreed with the previous two statements^[20].

LIMITATIONS OF STUDY

The sample chosen in this study did not consider randomization; hence, generalization of the results is

incorrect. In addition, targeting more than one hospital might provide a broader description of physicians regarding smoking cessation counselling in the country. Some designed questions probably were leading or adversely biased by recall.

CONCLUSION

Smoking status significantly affect knowledge, attitude, and some practices of smoking cessation counselling. Training on smoking cessation needs enforcement during graduate and postgraduate studies as well as in conferences and workshops.

ACKNOWLEDGEMENTS

The authors acknowledge the physicians of the University Hospital, who participated in the current research for their time and cooperation with the researchers.

CONFLICTS OF INTEREST

There are no conflicts of interest.

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