ORIGINAL ARTICLE

Evaluation of smoking cessation practice by physicians for hospitalized patients in a tertiary hospital

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Abstract

Objective: To investigate physicians' smoking cessation practice, consultation for smoking intervention for hospitalised patients and its determinants.

Methods: The cross-sectional study was conducted at Duzce University Hospital, Duzce, Turkey, from January to April 2013, and comprised hospitalised patients. The survey, including smoking habits and 5As (Ask, Advise, Assess, Assist and Arrange) steps of smoking intervention practiced by physicians was applied to those patients discharged from the hospital. SPSS 20 was used for statistical analysis.

Results: Of the 502(31.6%) participants, 264(52.6%) were women and 238(47.4%) were men. The overall mean age was 52.8±18.2 years. Besides, 269(53.6%) respondents were at the level of elementary school education; 289(57.6%) had chronic disease; 119(23.7%) were current and 106(21.1%) were former smokers. The frequency of current smokers among men with chronic disease was significantly lower compared to those who did not have chronic disease (p=0.017). In women, the factor was insignificant (p=0.642). The physicians practiced the steps of "Ask, Advise, Assess, Assist and Arrange" on 354(70.5%), 240(47.9%), 194(38.7%), 88(17.6%) and 29(5.8%) patients for active smoking. Consultation during hospitalization significantly increased patient's effort to quit smoking after discharge (p=0.012).

Conclusion: Smoking intervention by physicians for hospitalised patients was associated with the status of patient's gender, education level and chronic disease.

Keywords: Smoking, Smoking intervention, Hospitalisation, Physicians, Consultation. (JPMA 66: 1547; 2016)

Introduction

Tobacco dependence is a chronic and addictive health problem that represents the foremost preventable cause of death in the world. The adverse effects of smoking are well documented and it is crucial that this modifiable risk factor is routinely addressed. According to a clinical practice guideline for treating tobacco use and dependence, smoking causes significant harm to health, particularly coronary heart disease (CHD), stroke, respiratory diseases and various cancers.[1,2] Smoking cessation support is widely recommended in many healthcare centres and is highly cost-effective.[3] Admission to healthcare centres provides a powerful opportunity for health care providers to promote smoking cessation.[4] The guideline goes on to say that "…all physicians should strongly advise every smoking patient to quit, because evidence shows that physician advice to quit smoking increases abstinence rates".[5] Therefore, every health care professional is responsible for helping their patients to stop smoking.

Smokers are hospitalised more often than non-smokers.[6] Providing smoking cessation services during hospitalisation may help more people to attempt and sustain an attempt to quit. A hospital stay may provide a good setting in which to deliver smoking cessation intervention. Temporary abstinence from smoking may reduce the risk of complications and improve surgical and non-surgical outcomes. Hospitalisation may represent a "teachable moment" that encourages smokers to permanently quit, with great benefit to their long-term health.[7,8] Hospitalised patients may be highly receptive to such advice.[9]

The guidelines integrating the steps of smoking interventions recommend healthcare professionals to ask patients if they smoke, advise smoking patients to quit, assess their willingness to quit, assist patients by offering counseling, and arrange follow-up care. These practices are advocated by various professionals, including physicians, psychologists, health educators, and nurses.[10] Steps of smoking interventions described by the 5As (Ask,

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Advice, Assess, Assist and Arrange) are not well applied at hospital settings because of various reasons, such as a lack of time and appropriate skills of the nursing staff.[11] Levels of hospital smoking cessation practice are less optimal than expected.[12]

In literature, the frequency of smoking among hospitalised patients ranged between 17% and 33%.[13,14] Professional advice can be effective on reducing smoking use among smoker patients, yet it is not clear if all hospital in-patient smokers receive advice to quit. The current study was planned to evaluate smoking cessation practice by physicians for patients hospitalised in a tertiary hospital.

Patients and Methods

This cross-sectional study was conducted at Duzce University Hospital, Duzce, Turkey, between January and April 2013, and comprised hospitalised patients. A structured survey was applied over the phone to patients hospitalised within the first three months after their respective discharge. Patients who were hospitalised in the intensive care units (ICUs), paediatrics and chest diseases clinics were excluded. The study survey included information about basic demographic data, hospitalisation reason and smoking status of patients, their statements about doctors' practice about 5As and four of 5Rs (Relevance patients' diseases had with smoking, talking about Risks, Rewards and Roadblocks in every visit), and about patients' effort, if any, to quit smoking after discharge.

Based on the knowledge in literature, frequency of smoking was taken at 34%.[14] The critical alpha value was set at 3% (type I error), and a power (1 - β) of 85% (type II error).

The patients' contact information was obtained from the hospital's registry. The patients were randomly selected. Some patients were kept out of study analysis due to being timid over the phone, non-cooperative or unwilling to participate.

Approval of the Institutional review board (IRB) was obtained and informed consent was obtained from all participants. The questionnaire was anonymous, did not contain any critical questions, and confidentiality of the data was maintained.

SPSS 20 was used for statistical analysis. Categorical variables were stated as frequency and percentage. Continuous variables were given as mean ± standard deviation (SD). Fisher's exact test or chi-square test was used to compare categorical variable. Based on the results of univariate analysis, binary logistic regression analysis was applied for association between gender, education level and "Ask" step, and for ward (hospitalisation), gender and "Advice" step. P<0.05 was considered statistically significant.

Results

A total of consecutive 1587 hospitalized patients were initially taken from hospital registry within six months period. Of them, 502(31.6%) comprised the final study population, including 264(52.6%) women and 238(47.4%) men. The overall mean age was 52.8±18.2 years. Moreover, 269(53.6%) participants were at the level of elementary school education. Besides, 289(57.6%) participants had chronic disease while 213(42.4%) did not have it. There were 119(23.7%) current and 106(21.1%) former smokers, whereas 277(55.2%) participants had never smoked. The frequency of current smokers was 75(31.5%) in men and 44(16.7%) in women (p<0.001) (Table-1).

The frequency of current smokers among men with chronic disease was significantly lower compared to those who did not have chronic disease (p=0.017). Its frequency between among women with chronic disease and

Table-1: Smoking status according to gender, chronic disease and education level of participants.

		Smoking Status			P*
		Current (N, %)	Former (N, %)	Never (N, %)	
Sex	Male	75 (31.5)	89 (37.4)	74 (31.1)	< 0.001
	Female	44 (16.7)	17 (6.4)	303 (76.9)	
Chronic Disease	Present	58 (20.1)	72 (24.9)	159 (55.0)	0.015
	Absent	61 (28.6)	34 (16.0)	118 (55.4)	
Education Level	Illiterate	7 (9.2)	7 (9.2)	62 (81.6)	< 0.001
	Literate	5 (9.1)	7 (12.2)	43 (78.2)	
	Elementary	66 (24.5)	74 (27.5)	129 (48)	
	High	28 (50.9)	6 (10.9)	21 (38.2)	
	University	13 (27.7)	12 (25.5)	22 (46.8)	

*Chi-square test was used for comparison between smoking status and education level, ** The frequency of participants responded 'yes'.

Table-2: 5A steps of smoking cessation practice by physicians according to patients' gender, educational level, chronic disease (CD) and ward (hospitalisation).

		Ask (%)	Advice (%)	Assess (%)	Assist (%)	Arrange (%)
Sex	Male	75.6	55.4	46.8	23.1	6.4
	Female	65.9	37.5	22.7	6.8	4.5
		P=0.017	P=0.037	P=0.011	P=0.025	P=0.671
Education Level	Illiterate	68.4	50	14.3	12.5	2.2
	Literate	67.3	60	60	40	3.8
	Elementary	72.5	47.1	36.4	11.8	2.9
	High	56.4	35.7	39.3	17.9	3.6
	University	83	69.2	53.8	38.5	23.1
		P=0.049	P=0.323	P=0.389	P=0.086	P=0.029
Ward	Internal	72.4	65	42.5	25	7.5
	Surgical	69.5	39	35.8	13.4	4.9
		P=0.493	P=0.012	P=0.753	P=0.283	P=0.559
CD	Present	71.3	71.7	37.9	16.9	6.8
	Absent	69.5	44.3	38.1	17.5	4.8
		P=0.653	P=0.663	P=0.663	P=0.714	P=0.632

CD: Chronic disease.

*The percentage of the participants who stated that any of the 5A steps were applied for smoking cessation practice was represented in table. However, the percentage of the participants who stated that 5A steps were not applied was not represented. For comparison of 5A step with sex, ward and chronic disease status, Fisher's exact test was used, and chi-square was used for comparison of education level with 5A steps. ** The frequency of participants responded 'yes'.

Table-3: Four (Relevance, Risk, Rewards and Roadblocks) of 5R steps of smoking cessation practice by physicians according to patients' gender, educational level, and chronic disease (CD) and ward (hospitalization).

		Relevance (%)	Risk (%)	Rewards (%)	Roadblocks (%)
Sex	Male	30.8	43.6	46.2	38.7
	Female	15.9	25	24.8	20.5
		P=0.096	P=0.038	P=0.032	P=0.044
Educational level	Illiterate	37.5	25	37.5	57.1
	Literate	40	60	60	60.3
	Elementary	23.5	36.8	33.8	28.8
	High	21.4	28.6	28.6	21.4
	University	30.8	53.8	76.9	46.2
		P=0.926	P=0.434	P=0.028	P=0.147
Ward	Internal	45.6	48.6	52.5	35.9
	Surgical	15.9	30.5	31.7	30.6
		P=0.001	P=0.070	P=0.0318	P=0.536
CD	Present	37.9	42.4	42.4	32.2
	Absent	12.7	31.7	34.9	31.7
		P=0.001	P=0.332	P=0.458	P=0.847

CD: Chronic disease

The percentage of the participants who stated that any of the 5R steps were applied for smoking cessation practice was represented in table. However, the percentage of the participants who stated that 5R steps were not applied was not represented. For comparison of 5R step with sex, ward and chronic disease status, Fisher's exact test was used, and chi-square was used for comparison of education level with 5R steps. ** The frequency of participants responded 'yes'.

without chronic disease is similar (p=0.642) (Figure-1). The physicians practiced the steps of "Ask, Advise, Assess, Assist and Arrange" on 354(70.5%), 239(47.5%), 193(38.5%), 86(17.2%) and 29(5.7%) patients for active smoking, respectively. In addition, 112(22.3%) patients were asked for status of their passive smoking.

Table-2 represents the comparisons of SCP practice (5As) according to gender, education level, chronic disease status and ward of patient hospitalization. In the "Ask" step, 180(75.6%) were men and 174(65.9%) were women (p=0.017), whereas 11(83%) had university education level. In the "Advice" step, 133(55.4%) were men and 90(37.5%) were women (p=0.037) whereas 156(65%) were in internal and 94(39%) were in surgical ward (p=0.012). In the "Assess" step, there were 134(48%) men and 44(22.7%)

Table-4: Binary Logistic regression analysis of "Asking" step of smoking cessation practice for adjusted gender, education level, ward, chronic disease and age.

Dependent Variables	Dependent Variable	P	Exp (B)	95.0% CI	
Ask Step (Yes/No)	Gender (Women)	0.031	1.568	1.042	2.359
		0.765	0.892	0.422	1.884
	Education Level	0.794	1.078	0.613	1.896
		0.073	0.510	0.244	1.066
		0.218	1.791	0.709	4.523
Advice Step (Yes/No)	Gender (Women)	0.048	2.044	0.1008	4.500
	Ward (Internal Medicine)	0.021	0.388	0.174	0.866

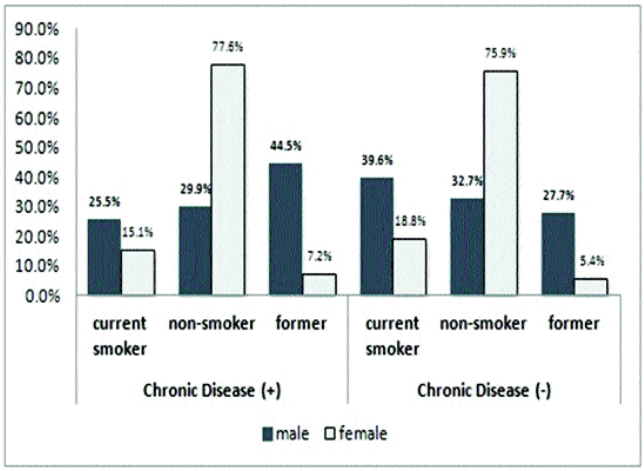

Figure-1: Demonstration of active smoking frequency in patients according to gender status and presence or absence of chronic disease.

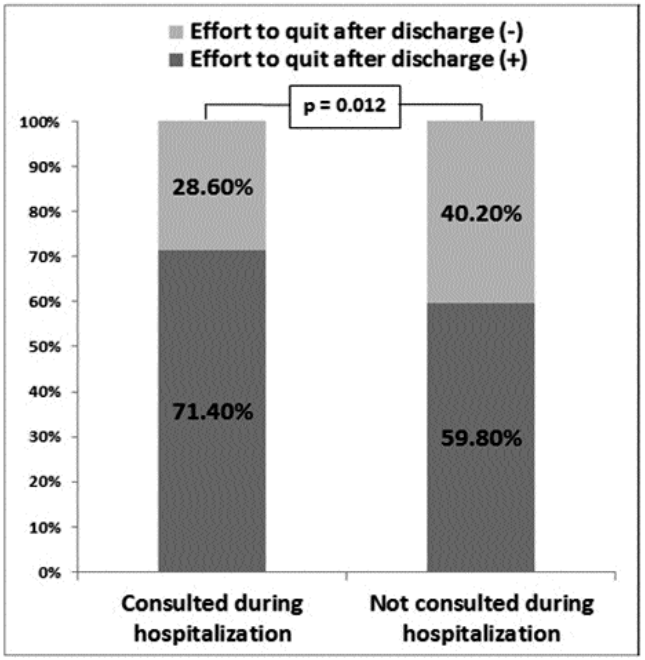

Figure-2: Displays that how does consultation during hospitalization affect patient`s effort to quit smoking after discharge from hospital.

women (p=0.011), whereas in the "Assist" step, the number was 54(22.7%) and 18(6.8%) (p=0.026), respectively.

In 44(37%) current smokers, their diseases were made relevant with active smoking, 30(25.0%) of them were discussed about risks, rewards of smoking stopping was discussed in 46(38.7%), and roadblocks were asked in 38(31.9%) (Table-3). In the "Relevance" step, there were 73(30.8%) men and 42(15.9%) women (p=0.096), 223(45.6%) patients were in internal and 80(15.9%) were in surgical wards (p=0.001), whereas 190(37.9%) had and 12.7% did not have CD (p=0.001). Moreover, 170(33.4%) of the active smoking patients were discussed about risks of smoking; the percentage of men (104) was 43.6% and women (66) was 25% (p = 0.038).

The "Ask" step was more applied in men (odds ratio [OR': 1.568; confidence interval (CI): 1.042-2.359; p=0.031) by the physicians. Likewise, men were more likely to be advised to stop smoking than women (OR: 2.044 and CI: 1.008-4.500; p=0.048) (Table-4).

Furthermore, 7(6.1%) current smokers consulted with professionals for smoking intervention during hospitalisation and 11(9.1%) were referred to chest disease clinic for smoking cessation after discharge. Of those who consulted, 5(71.4%) made effort to quit after discharge, whereas of those who did not consult, 67(59.8%) made effort to quit after discharge (p=0.012) (Figure-2).

Discussion

The study revealed that smoking cessation practice of the physicians for hospitalised patients was low and was associated with patients' gender, education level and chronic disease, and the physicians from internal branches were more and better performing cessation practice. Moreover, asking passive smoking status of non-smokers was relatively less practised. Consultation for smoking intervention during hospitalisation encouraged

patients' effort to quit smoking.

Smoking is one of the leading causes of preventable death worldwide. There is good evidence that brief interventions from health professionals can increase smoking cessation. But most of the literature is about primary care settings and outpatient clinics of hospitals. One of the most leading problems in cessation practice revealed by doctors is time constraints.[15,16] Nevertheless, hospitalisation provides more time for health care professionals.

Although there is not enough evidence about effects of brief smoking cessation counselling interventions during hospitalisation in giving up smoking, providing smoking cessation services during hospitalisation may help more people to attempt and sustain an attempt to quit. A hospital stay may provide a good setting in which to deliver smoking cessation intervention. Temporary abstinence from smoking may reduce the risk of complications and improve surgical and non-surgical outcomes.

Hospitalisation is an opportunity for a physician as a "teachable moment" that encourages smokers to permanently quit, with great benefit to their long-term health.[7] Some advantages for smoking cessation interventions during hospitalisation are: Much more time for doctor and patient for smoking cessation counselling interventions; difficulty of finding and using the substance; being faced with the hazards of smoking, etc. Hospitalisation should be converted into opportunities for smoking cessation interventions. There are two sides in these interventions: health care professionals and patients. What you told is limited as what your correspondant understood. In this study we wondered about what patient understood about the smoking cessation intervention and asked patients about 5As and 5Rs.

Although all doctors have to practice "ask" step for smoking cessation counselling, only 70% of hospitalised patients agreed to be "asked" for active smoking. Smoking prevalence of adults in Turkey is over one-third of population. Second-hand smoking rates are higher than active smoke rates with 59.7% in houses and 38% at indoor working places.[17] Nevertheless, asking for second-hand smoke exposure was a fifth.

Implementation of other steps diminished progressively as 47.9%, 38.7%, 17.6% and 5.8% for advice, assess, assist and arrange steps, respectively. Gender in all 5A applications constituted a statistically significant difference. Female smoking rates are lower across the world. It is usually due to traditional norms that discourage female smoking. As the traditional norms change and smoking become a symbol of freedom for women, smoking rates of females are increasing rapidly compared to males.[18]

In this study, women were less "asked". In our opinion, this is a result of socio-cultural perceptions. They were also "advised", "assessed", "assisted" and "arranged" less than male patients. Risks of smoking were also described lesser to female patients. According to literature, women respond poorly than men on behavioural counselling and their quit ratio is lower.[19] In our study, the number of former smokers was significantly different among patients with or without chronic disease in men versus women, meaning that harmful consequences of smoking do not redirect women to cessation. It is open to debate whether this result is due to a poorer response of women to cessation practices or due to less application of 5As to women.

You lose the challenge if you do not improve your strategy by the enemy's tactics. Health care workers must break the taboo in their minds about female smoking urgently and should care about female smokers, at least as much as tobacco companies.

Because surgery mandates an enforced period of abstinence, the peri-operative period may be an opportune time to help smokers quit versus internal diseases. Peri-operative smoking cessation is also an effective method to reduce post-operative complications.[20]

Intervening and asking patients to fast from smoking before surgery is an effective way to reduce pre-operative tobacco use in elective surgery patients. Indeed, without intervention, as many as 25% of smokers might increase the amount smoked.[21] Our study showed that patients hospitalised in surgery wards were advised fewer than patients hospitalised in internal wards. They were also informed less about the relevance of smoking and their illness. Conversely, Gunay et al.[22] did not find any difference between internal and surgery wards in "ask" and "advice" step by asking patients during hospitalisation.

Nelson et al.[23] could not find any change in smoking screening and counselling for smokers with chronic smoking-sensitive cardiopulmonary diseases from 2001-2009 in primary care settings in the United States. Among smokers with smoking-related diseases, approximately 50% received no counselling. In our study, chronic disease did not group as smoking-sensitive or not but there was no difference in steps of 5A's and 5R's except relevance in

patients with and without chronic disease. In our opinion, carrying out only "relevance" without applying other steps may lead a patient to feel himself/herself accused or tried.

We agree that smoking intervention in-practice condition during every examination is one of the physicians' primary responsibilities. On the other hand, there are a few studies investigating smoking intervention for hospitalised patients. The benefit for smokers is largely due to patients' in referral to quit-line clinics than patients in the in-practice condition.[24] Another study reported that a multifaceted guideline implementation strategy that includes enhanced academic detailing, adaptation of the nursing admission form, performance feedback, and ready access to patient education materials helps in improving the delivery of smoking cessation treatment to unselected hospitalised smokers.[25] Addressing smoking through the delivery of intensive interventions and, when appropriate, the use of pharmacotherapy can lead to a significant improvement in smoking cessation rates.[26] Similarly, we found that consultation for smoking intervention with professionals or quit-line clinics increased effort to quit smoking.

The current study had some limitations. Our results were based on self-report of patient, thus subject to the recollection and biases of each individual. Therefore, they were not inaccurate and may not represent the actual rate of questioning. The survey was applied after discharge from hospital. Thus, the patients could not remember whether they were asked about smoking or not during hospitalisation period. Selection bias was minimal as all in-patients within the broad inclusion criteria outlined previously, regardless of ward specialty or reason for hospitalisation.

Conclusion

Smoking intervention by physicians for hospitalised patients was found to be associated with the status of patient's gender, education level and chronic disease. The physicians from internal branches were performing cessation practice better. Physicians must be trained about smoking intervention for hospitalised patients and should be encouraged getting hold of opportunities and "teachable moment" for smoking cessation practice.

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References

1. Britton J, Edwards R. Tobacco smoking, harm reduction, and nicotine product regulation. Lancet. 2008; 371: 441-5.
2. World Health Organization, 2003. Policy recommendations for smoking cessation and treatment of tobacco dependence. WHO, France.
3. West R, McNeill A, Raw M. Smoking cessation guidelines for health professionals: an update. Health Education Authority. Thorax. 2000; 55:987-99.
4. Rigotti NA, Munafo MR, Stead LF. Smoking cessation interventions for hospitalized smokers: a systematic review. Arch Intern Med. 2008; 168:1950-60.
5. [No authors listed]. A clinical practice guideline for treating tobacco use and dependence: A US Public Health Service Report. JAMA. 2000; 283:3244-54.
6. Emmons KM., Goldstein MG. Smokers who are hospitalized: a window of opportunity for cessation interventions. Prev Med. 1992; 21: 262-9.
7. Munafò M, Rigotti N, Lancaster T, Stead L, Murphy M. Interventions for smoking cessation in hospitalized patients: a systematic review. Thorax. 2001; 56:656-63.
8. Sciamanna CN, Stillman FA, Hoch JS, Butler JH, Gass KG, Ford DE. Opportunities for improving inpatient smoking cessation programs: a community hospital experience. Prev Med. 2000; 30:496-503.
9. Shah LM, King AC, Basu A, Krishnan JA, Borden WB, Meltzer D, et al. Effect of clinician advice and patient preparedness to quit on subsequent quit attempts in hospitalized smokers. J Hosp Med. 2010; 5:26-32.
10. Hays JT, Ebbert JO, Sood A. Treating tobacco dependence in light of the 2008 US Department of Health and Human Services clinical practice guideline. Mayo Clin Proc 2009; 84:730-5.
11. Segaar D, Willemsen MC, Bolman C, De Vries H. Nurse adherence to a minimal-contact smoking cessation intervention on cardiac wards. Res Nurs Health. 2007; 30: 429-44.
12. Rigotti NA, Munafo MR, Murphy MFG, Stead LF. Interventions for smoking cessation in hospitalized patients. Cochrane Database Syst Rev. 2012;CD001837.
13. Bartels C, Abuhaliga AR, McGee H, Morgan K, McElvaney NG, Doyle F. A survey of the prevalence of smoking and smoking cessation advice received by inpatients in a large teaching hospital in Ireland. Ir J Med Sci. 2012; 181:445-9.
14. Raupach T, Merker J, Hasenfuss G, Andreas S, Pipe A. Knowledge gaps about smoking cessation in hospitalized patients and their doctors. Eur J Cardiovasc Prev Rehabil. 2011; 18:334-41.
15. Panaitescu C, Moffat MA, Williams S, Pinnock H, Boros M, Oana CS, et al. Barriers to the provision of smoking cessation assistance: a qualitative study among Romanian family physicians. NPJ Prim Care Respir Med. 2014; 24:14022.
16. Helgason AR, Lund KE. General practitioners' perceived barriers to smoking cessation-results from four Nordic countries. Scand J Public Health. 2002; 30:141-7.
17. The Ministry of Health of Turkey, Global Adult Tobacco Survey Turkey Report- 2010. 2010; pp: 11-22.
18. World Health Organization. Gender, Health, Tobacco and Equity[Online] 2010 [cited 2011] available from URL: http://www.who.int/tobacco/publications/gender/gender_tobacco_2010.pdf?ua=1.
19. Collins BN, Wileyto EP, Patterson F, Rukstalis M, Audrain-McGovern J, Kaufmann V, et al. Gender differences in smoking cessation in a placebo-controlled trial of bupropion with behavioral counseling.

Nicotine Tob Res. 2004; 6:27-37.
20. Lindström D, Sadr Azodi O, Wladis A, Tønnesen H, Linder S, Nåsell H, et al. Effects of a perioperative smoking cessation intervention on postoperative complications: a randomized trial. Ann Surg. 2008; 248:739-45.
21. Ratner PA, Johnson JL, Richardson CG, Bottorff JL, Moffat B, Mackay M, et al. Efficacy of a smoking-cessation intervention for elective-surgical patients. Res Nurs Health. 2004; 27:148-161.
22. Gunay E, Sar?nc US, Ahsen A, Oz G, Koyuncu T, Unlu M. [Determining The Suggestion status of physicians about smoking cessation to smoker patients in a university hospital]. Izmir Gogus Hastanesi Dergisi. 2014; 28:23-30.
23. Nelson KE, Hersh AL, Nkoy FL, Maselli JH, Srivastava R, Cabana MD. Primary care physician smoking screening and counseling for patients with chronic disease. Prev Med. 2014: 71:77-82.
24. Borland R, Balmford J, Bishop N, Segan C, Piterman L, McKay-Brown L, et al. In-practice management versus quitline referral for enhancing smoking cessation in general practice: a cluster randomized trial. Fam Pract. 2008; 25:382-9.
25. Katz DA, Holman J, Johnson S, Hillis SL, Ono S, Stewart K, et al. Implementing smoking cessation guidelines for hospitalized veterans: effects on nurse attitudes and performance. J Gen Intern Med 2013; 28:1420-149.
26. Clark BJ, Moss M. Secondary prevention in the intensive care unit: does intensive care unit admission represent a & quot; teachable moment?" Crit Care Med 2011; 39:1500-1506.