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Physician versus the smoking habit of the patient

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ABSTRACT

Objectives. This study has aimed to investigate the bases, conditions and the characteristics of the counselling approach of physicians serving in diverse branches of medicine in our hospital. ***Methods.*** Volunteering physicians working in our hospital were given a questionnaire designed to investigate their approach in counselling against cigarette smoking habits of patients arriving at the emergency services, the polyclinics and the specialized clinics. The relationships between the answers given to the questions asked and the professional branches or the characteristics of the approach to counselling was analysed statistically. ***Results.*** The study enrolled 64 volunteering physicians. There were statistically significant differences in the approaches of the physicians working at the emergency services, polyclinics and the clinics (p<0.001). The strongest counselling approach was estimated in the specialized clinics and the weakest in the emergecy services. Whereas there were no statistically significant differences in counselling with respect to the branches of medicine at the clinics (p=0.271) and the emergency services (p=0.542); the awareness on the subject was found to be higher among the physicians at the pulmonology, thoracic surgery and ear-nose-throat (ENT) polyclinics as determined statistically (p=0.013). ***Conclusions.*** To counsel consulting patients against this habit is therefore a fundamental duty of the physician. The study has shown that not all physicians are equally aware of and informed on the necessity of this counselling duty.

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Keywords: Physician, smoking, cigarette, duty

Introduction

Encouragement of the patient against the cigarette smoking habit by the physician, even during very short clinical interventions, has been found to be effective [1-3]. In the United States of America, over 70% of the smokers consult a physicians at least once per year [4]. Such consultations can be exploited for counselling against the smoking habit by the physician who has a strong potential for this purpose. However, this potential is not being used appropriately [5, 6]. The World Health Organization (WHO) has drawn attention to the potential of all healthcare professionals in fighting against the cigarette smoking habit [7]. Serving at any branch or any platform of medicine, the healthcare professional has to query the smoking habit

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and to advise against it with an aim to promote public health.

The aim of this study has been to investigate the differences in the counselling approach of the physicians serving in the same hospital, when meeting patients on different consultation platforms with differing conditions.

Methods

Out of a total 98 physicians contacted in our hospital, in Bursa, Turkey, 64 (65.3%) accepted to participate in our study. The volunteering group of 64 physicians were asked to complete a specially designed questionnaire consisting of 3 parts:

1) Demographic information

2) Questions related to the approaches made to find out the smoking habit of the consulting patient and the counsellinggiven (Table 1). The questions were designed after presenting the preliminary form to the pulmonology and thoracic surgery specialists at our hospital. The final format was organized with the help of the psychology department. Each question was given alternative choices with scores ranging from 1 to 5. The scores of the physicians were evaluated with statistical analyses.

3) The Maslach burnout inventory

Physicians involved in preclinical branches and in the healthcare of pediatric patients were excluded on grounds of the inapplicability of the questionnaire. Two pulmonologists who held certificates of a course for stopping smoking were also excluded from the study as their response would not represent the general attitude of the physicians to the smoking habit. Otherwise, it was attempted to reach all physicians working in the hospital.

Statistical Analysis

Existence of any relationship between the answers given by the physicians and their respective branches of medicine and also the characteristics of their counselling approach were statistically evaluated by means of the Statistical Package for Social Sciences (SPSS) (IBM Corp. Released 2015. IBM SPSS Statistics for Windows, Version 23.0. Armonk, NY: IBM Corp.). Numerical values were expressed by the mean and the standard deviation; and their distribution was tested with the Kolmogorov-Smirnov test. Categorical values were evaluated with percentages. The mean scores on the answers given to the questions in the questionnaire form and the median (minimum-maximum) of the patients seen at the emergency services, the polyclinics and the specialized clinics were compared using the Kruskal-Wallis test. The mean scores of the internal medical and the surgical branches were compared by using the independent samples t test. The relationship between the mean scores on the questionnaire in the emergency services, the polyclinics and the specialist clinics and the mean number of the monthly seen patients together with the scores on the burnout inventory were analyzed by using correlation analysis and Pearson correlation coefficient was computed. The relationship between the demographic details of the physicians and the scores on the questionnaire form were assessed by the Chi-Square test. A p value of <0.05 was accepted as statistically significant.

Table 1. Contents of the Questionnaire completed by the physicians at the emergency services, the outpatient clinics and the specialist clinics.

A- Do you follow up inpatients at the specialist clinics? (If your answer is Yes, please answer the questions on this page. If your answer is No, you may continue on the following pages)
1) What is the mean number of patients you see in the outpatient clinics during one month?
2) I query the patients on whether they smoke or not.
A) Never B) Rarely C) Generally D) Frequently E) Always
3) I give inform the polyclinics patients on the harmful effects of smoking.
A) Never B) Rarely C) Generally D) Frequently E) Always
4) I advise the patients that they should quit smoking.
A) Never B) Rarely C) Generally D) Frequently E) Always
5) I refer the smoking patients to the smoking cessation outpatient clinics when their treatment is completed.
A=1 point, B=2 point, C=3 point, D=4 point, E=5 point

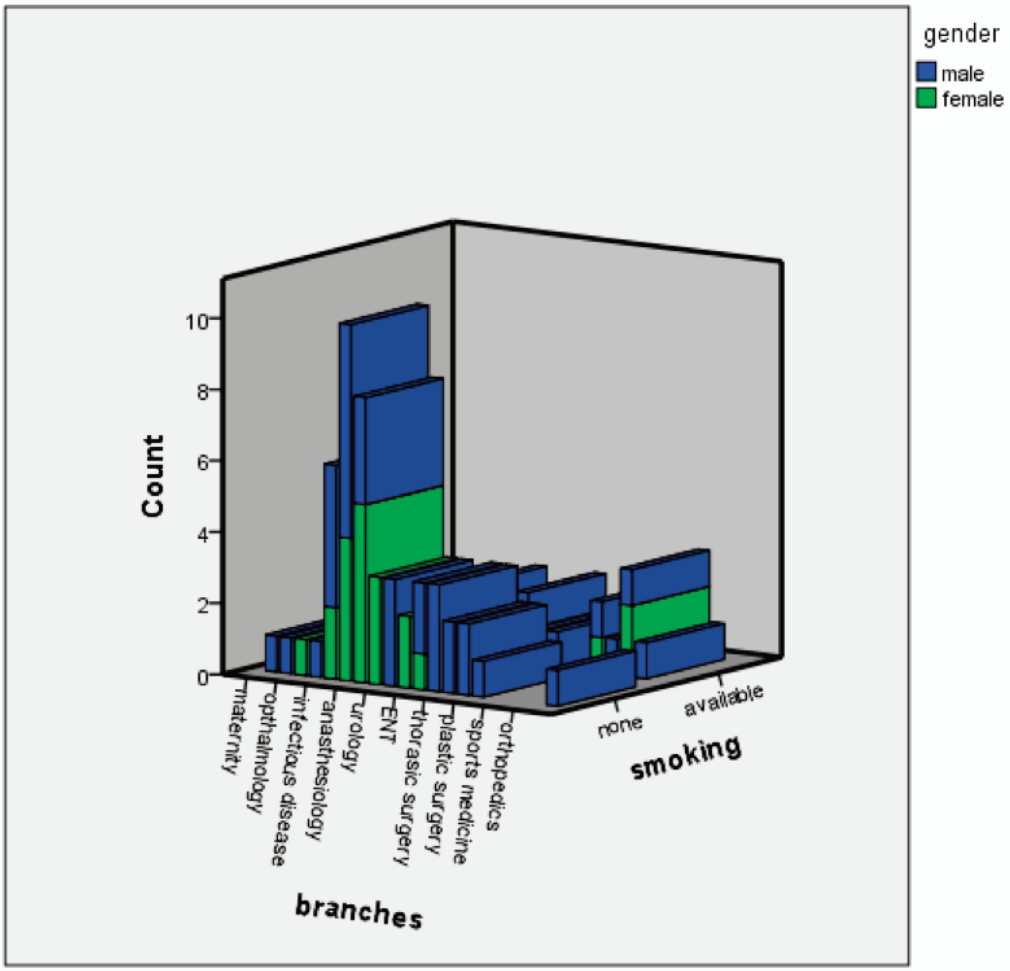

Figure1. According to branches, the number of male and female doctors who smoker and do not smoker.

Results

The study enrolled 64 physicians with a mean professional experience of 15.13 (min=1, max=33) years and a mean age of 39.73 (min=20, max=57) years. The group consisted of 23 (35.9%) females and 41 (64.1%) males; and in the total group, 16 (25%) were smokers while 48 (75%) were non-smokers (Figure 1). The mean number of the total patients seen monthly was found to be 697.27±443.47. The mean number of patients seen per month at the emergency services, the polyclinics and the specialist clinics were 158.44±349.28, 569.03±446.24 and 44.15±45.6; respectively.

The percentage values for the answers given by the physicians to the questionnaire are summarized in Table 2. The mean percentage of physicians in the total group generally or frequently questioning the consulting patient on "if they smoked cigarettes" was 56%; the distribution in the emergency services, the polyclinics and the clinics being 34.9%, 58.1% and 75%; respectively. The values for the physicians who frequently or generally gave "information on the adverse effects of smoking on health" in the above named hospital departments were 21%, 43.6% and 62.5%; respectively, the value being 42.36% in the total group of 64 physicians; the corresponding values for generally or frequently advising the patient "to give up smoking" being, 32.6%, 62.9% and 75%; and 56.83%; respectively, for the total group of 64 physicians. The values for the physicians at the emergency services, the polyclinics and the specialist clinics who generally or frequently referred the patients with a smoking habit to the smoking cessation polyclinics (SCP) were 23.3%, 38.8% and 27.1%; respectively, the mean value for the whole group of 64 physicians being 29.3%. The approaches of the physicians working at the emergency services, the polyclinics and the specialist clinics to the cigarette smoking habit of the patients differed significantly (p<0,001). The strongest care on the subject was seen in the specialist clinics and the lowest in the

Table 2. The percentage expression of the answers given to the questionnaire

Questionnaire items	Platform	Always (%)	Frequently (%)	Generally (%)	Rarely (%)	Never (%)
Querying	Outpatient clinics	19.4	21	17.7	33.9	8.1
	Specialized clinics	37.5	16.7	20.8	18.8	6.3
	Emergency services	9.3	2.3	23.3	44.2	20.9
Informing	Outpatient clinics	9.7	12.9	21	46.8	9.7
	Specialized clinics	22.9	14.6	25	31.3	6.3
	Emergency services	4.7	4.7	11.6	53.5	25.6
Advise to quit	Outpatient clinics	19.4	25.8	17.7	29	8.1
	Specialized clinics	27.1	20.8	27.1	18.8	6.3
	Emergency services	7	4.7	20.9	46.5	20.9
Referral to SCP	Outpatient clinics	8.1	11.3	19.4	37.1	24.2
	Specialized clinics	10.4	6.3	10.4	52.1	20.8
	Emergency services	7	4.7	11.6	39.5	37.2

(SCP=smoking cessation polyclinic)

emergency services (Figure 2).

Although there were not significant differences in the counselling against smoking with respect to the branches of medicine at the emergency services and the clinics; the awareness on the duty to advise against smoking was significantly higher at the at the pulmonology, thoracic surgery, and the ear-nose-throat (ENT) polyclinics (p=0.013) in contrast to the observations in the emergency services (p=0.54) and the clinics (p=0.27) (Figure 3).

When the internal diseases and the surgical branches , excluding the pulmonogy , thoracic surgery and the ENT branches, were compared as two groups, statistically significant differences were not observed in the groups working at the polyclinics (p=0.44) and the specialist clinics (p=0.37). However, the mean score of the internal branches at the emergency service was significantly elevated (p=0.029). Correlation were not observed between the scores on the burnout inventory and the questioning of the smoking habits of patients at the emergency services (p=0.28, correlation coefficient=-0.172), the polyclinics (p=0.48, correlation coefficient=0.092) and the specialist clinics (p=0.37, correlation coefficient=0.132).

The approach to counselling against smoking did not differ between the different gender groups at the emergency services (p=0.4); the polyclinics (p=0.92) or at the clinics (p=0.79). Also, there were no significant differences between the smoking and the non-smoking physicians at the emergency services (p=0.1), the polyclinics (p=0.1) and the clinics (p=0.42). Although there were no statistically significant differences in the marital status of the physicians working at the polyclinics (p=0.76) and clinics (p=0.47), those working at the emergency services were found to be of younger age (p=0.01).

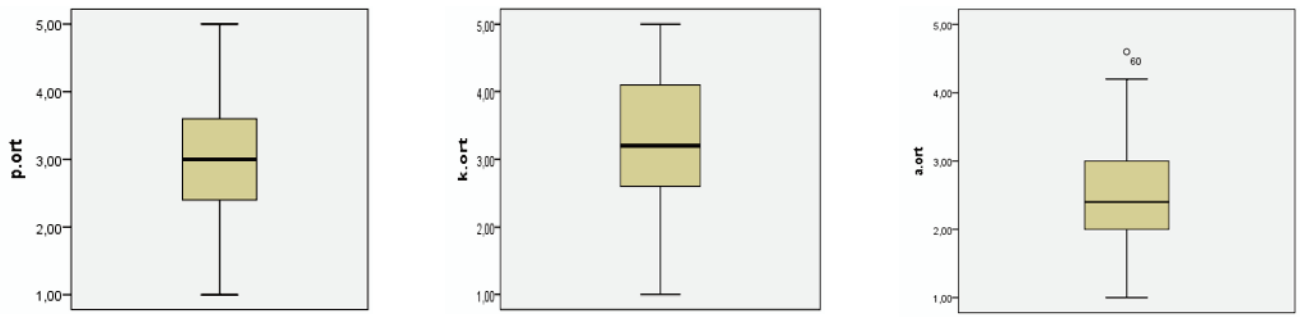

Figure 2. The mean scores (counts) on the questionnaire completed by the physicians in the Outpatient clinics, the Clinics and the Emergency Services.

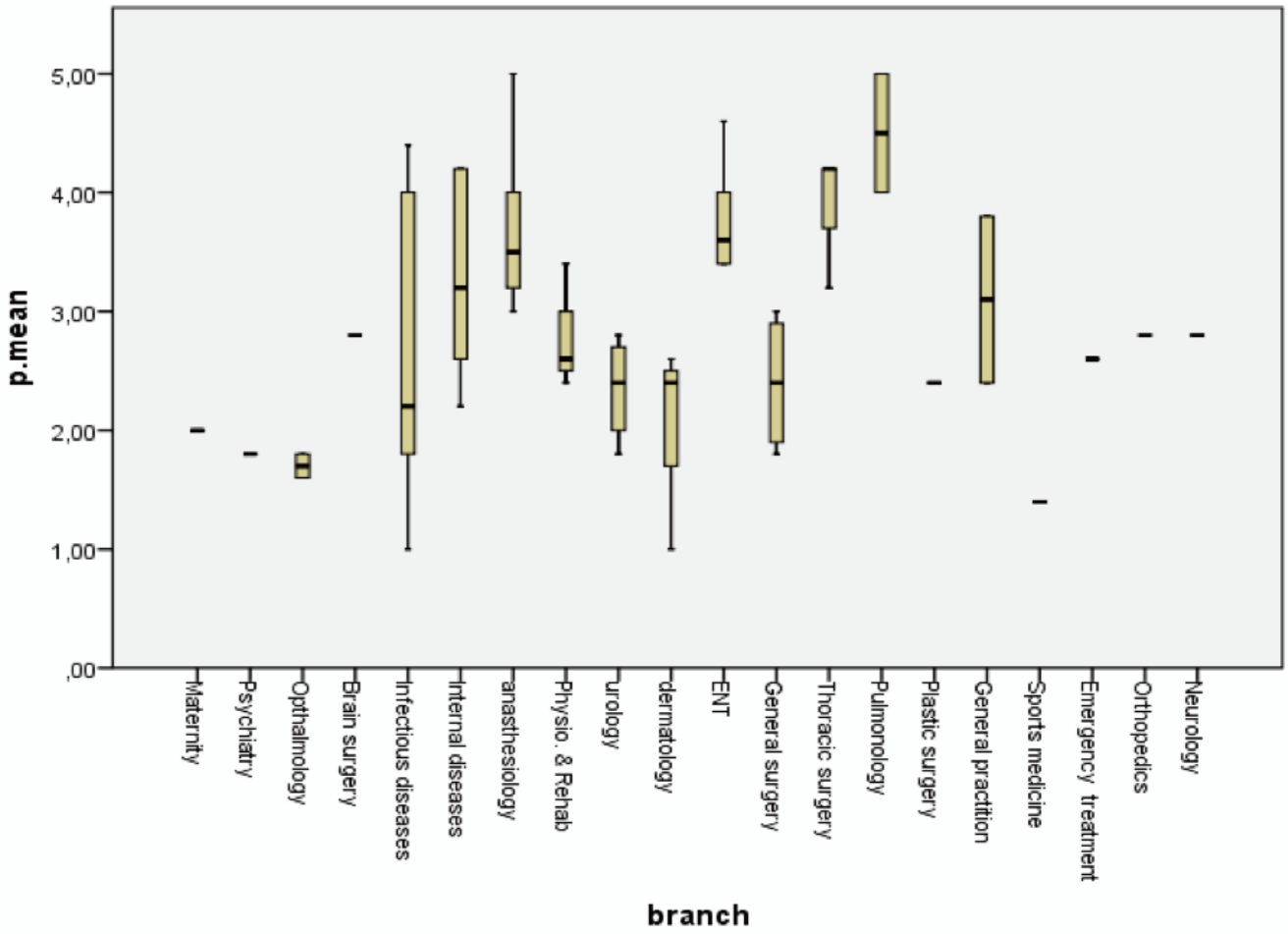

Figure 3. The mean values in all branches of medical services given in the outpatient clinics.

Discussion

Cigarette smoking habit is globally ranked as the first cause of mortality among the high income nations, and the second cause of mortality in the entire world [8]. It must, therefore, be emphasized that the notable result of this study is the observation of a significantly lower approach to the smoking habit of the patient among the physicians specialized in branches not directly related to the pulmonary system and employed in departments other than the pulmonology, thoracic surgery and the ENT polyclinics. In a study by King *et al.* [9], on the venture of healthcare professionals to give up smoking, not having evaluated the physicians separately with respect to branches of medicine has been given as a limitation to the study. We have not found in the literature scanned another study discerning the approach on counselling against smoking in different branches of medicine.

Evaluation of the physicians in counselling patients on smoking in the emergency services, the polyclinics and the specialized clinics has given the highest results in the clinics and the lowest at the emergency services. This can be explained by the clinicians having more time to give to the fewer inpatients under treatment, while the time spent with the patient is much more limited at the emergency services and the polyclinics. However, we believe that relating the causes of the complaints of patients consulting the emergency services to the smoking habit, which would not take further than 1-2 minutes, would be of significant contribution to the cessation of this habit. It has been reported that a few minutes given by the physician to counselling against smoking has been effective to the extent of 5-15% increase in giving up the habit [5]. King *et al.* [9] have estimated that 87.9% of the physicians do inquire if the patient smokes or not. The corresponding value determined by Demir *et al.* [10] for physicians who generally or frequently inquired the smoking habit of the patient was 56.7%. Our result was 56% for the physicians working at the polyclinics, indicating that a significant improvement has not taken place over the passing 3

years.

Advice given to the patient on giving up smoking has been rated as 65.8%; 71.5% and 48.6% by King *et al.* [9], Demir *et al.* [10] and Lindorff *et al.* [11], respectively, while our result was 56.83%. In comparing these results, as there cannot be incidences of advising to give up smoking that exceed those of inquiring about it, we believe that these values in hand represent the percentage of those physicians who advise against smoking. In our study 42.36% of the physicians have reported informing the patient on the harm done by smoking. We have not met a similar evaluation in the studies carried out previously by others.

While the individual efforts result in 3-5% success in giving up smoking, receiving help from the smoking cessation polyclinics increases the success to nearer the 40% [12]. Despite the presence of a 7-day serving SCP at our hospital, the mean percentage of physicians referring patients to this service was found to be 29.7%. Demir *et al.* [10] have reported that about one third of the physicians were unaware of the existence of the SCP service while only 57.3% (making up 38.2% of the physicians joining the investigation) who knew about it made the necessary referrals.

Although some studies have reported a higher percentage of nonsmoking physicians get concerned with the smoking habit of patients as compared to the physicians who are smokers [10, 13, 14], our results have not determined a similar difference. This observation may be due to the increased awareness of the cigarette smoking physicians despite continuing with their personal habit. However, it should be kept in mind when making this assumption that the number of the participants in our study has been low.

There was not any difference on the approaches of the physicians on counselling against smoking on the basis of gender difference; but, unmarried physicians working at the emergency services were observed to be more sensitive to the smoking habit of the arriving patients. The relatively fewer physicians working at the emergency services may have given this statistical result.

The Limitations of the Study

The primary limitation to the study reported here may be having worked with a small number of physicians at the same hospital, the dependence of our results on the answers given by them to the purpose made questionnaire, and not having had the opportunity to observe the physicians at the emergency services, the polyclinics and the specialist clinics.

Conclusions

Habitual cigarette smoking is one of the most important threats to human health in the current century. A very serious duty falls on the physician to combat this habit. It is quite obvious that not all physicians working in any branch of medicine are aware of the obligation to query the smoking habit, to give information about it and to advice against it. We believe that not only the physicians treating disorders related to pulmonary functions, but all physicians in diverse branches ofmedicine should be trained comprehensively on the subject.

Conflict of interest

The authors disclosed no conflict of interest during the preparation or publication of this manuscript.

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