

Smoking Habits of Outpatients at the Dental Hospital Faculty of Dentistry Universitas Indonesia

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Abstract

Smoking habits can harm a country's economy and public health and lead to deviant behavior. Dentists have the potential to influence smoking cessation. This study investigated the number of outpatients at the Dental Hospital Faculty of Dentistry Universitas Indonesia (RSKGM FKG UI) who smoked, number of years spent smoking, age they began smoking, type of cigarettes consumed, patients' experience regarding the dentist's role in controlling cigarette consumption, and patients' knowledge about the relationship between smoking habits and drug addiction. From 136 respondents, there were 20 (14.7%) smokers and 18 (13.2%) ex-smokers from various genders, age groups, education status, and economic status. These smokers and ex-smokers mostly used white cigarettes, started smoking between the ages 16 and 20 years, had smoked for >11 years, consumed 11–20 cigarettes per day for 1–5 min per cigarette, and did not use any other form of tobacco other than cigarettes. Most and ex-smokers had visited a dentist during their smoking life and were given advice and information regarding the dangers of smoking. However, 60.5% of smokers and ex-smokers stated that they were not given smoking cessation counseling, and 34.5% did not acknowledge the relationship between smoking habits and drug addiction.

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Introduction

Indonesia is the 3rd biggest country in terms of cigarette consumption, with 59.9 million adult smokers.¹ Male smokers in Indonesia account for the third highest number of smokers worldwide, whereas female smokers are ranked 17th highest. In 2008, the Global Adult Tobacco Survey stated that the cost of cigarette consumption in Indonesia had reached 225,000,000 Indonesian Rupiahs per year.² According to data gathered by Basic Health Research in 2013, the average number of cigarettes consumed in Indonesia was 12.3 (approximately 1 pack) per day.³ In terms of cost, each smoker spent approximately 216,000 Rupiahs per month on cigarettes. The country also took its toll, spending around 1.86 trillion

Rupiahs on health care provision for smoking-related diseases.²

In 2011, Lestary and Sugiharti stated that teenage smokers were 124 times more likely to consume drugs in the future.⁴ The prevalence of the number of smokers increased worldwide in 2013, and it was predicted that 315 million people aged 15–64 years were smokers.⁵ Other factors such as age, gender, education background, and economy status were independent variables that dominantly affected drug abuse behavior, especially in teenagers.⁵ However, smoking remains the main factor affecting future drug abuse behavior as a precursor behavior.⁵

Smoking habits and drug abuse are one of many predisposing factors for oral disease. Intensive tobacco consumption has become one of the strongest risk factors for oral cancer, oral mucosa lesion, periodontal lesion, gingival recession, and caries and inhibits tissue ability to heal after treatment.⁶ Drug abuse is associated with other serious diseases such as generalized caries, periodontal disease, mucosa dysplasia, xerostomia, bruxism, and tooth loss.⁷ A study in the United States of America stated that 97% of

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patients in rehabilitation centers for substance abuse also consumed tobacco, particularly cigarettes.⁸

As health care professionals, dentists represent a potential factor able to influence behavioral changes regarding addiction in patients, as there is an intrapersonal relationship between the patient and the dentist.⁹ A dentist's role as a health educator through counseling, providing information via literature, and setting an example could promote behavior changes, especially smoking cessation.¹⁰

Materials and methods

The present study was a survey with a descriptive analysis method to give general information about patients at the Dental Hospital Faculty of Dentistry Universitas Indonesia (RSKGM FKG UI) regarding sociodemographic factors, smoking habits, the role of dentists, and patients' knowledge about the relationship between smoking habits and drug addiction. A

total of 136 participants agreed to a questionnaire-based interview. The study used a modified version of a former questionnaire about tobacco and drug usage in students,¹¹ and the role of dentists in smoking cessation of patients.¹² The questionnaire was tested for its validity and reliability. Patients were chosen using a non-probability sampling technique (consecutive random sampling) from a population of patients attending RSKGM FKG UI over 6 working days. Questions focused on the sociodemographic status of the patient, smoking status, whether their dentist enquired about their smoking status, and patients' knowledge about the relationship between smoking habits and drug consumption (Table 1). For smokers or ex-smokers, extra questions were included about the types of cigarette smoked, the number of cigarettes smoked per day, duration, and the number of dental visits during the smoking period (Tables 2 and 3).

n = 136	Smoker		Ex-Smoker		Never-Smoker	
	n	%	n	%	n	%
Gender						
Male	19	14.0%	13	9.6%	24	17.6%
Female	1	0.7%	5	3.7%	74	54.4%
Age						
< 21 years	1	0.7%	0	0.0%	17	12.5%
21–30 years	7	5.1%	6	4.4%	45	33.1%
31–40 years	3	2.2%	4	2.9%	10	7.4%
41–50 years	7	5.1%	1	0.7%	12	8.8%
51–60 years	1	0.7%	3	2.2%	8	5.9%
> 60 years	1	0.7%	4	2.9%	4	2.9%
Education						
Never schooled	0	0.0%	0	0.0%	0	0.0%
Never graduate	0	0.0%	1	0.7%	1	0.7%
Elementary graduate	1	0.7%	0	0.0%	0	0.0%
Junior high graduate	3	2.2%	1	0.7%	9	6.6%
Senior high graduate	7	5.1%	4	2.9%	41	30.1%
University graduate	9	6.6%	12	8.8%	47	34.6%
Economy Status						
Poor	2	1.5%	3	2.2%	4	2.9%
Emerging middle	1	0.7%	0	0.0%	7	5.1%
Middle	3	2.2%	1	0.7%	18	13.2%
Upper middle	2	1.5%	4	2.9%	18	13.2%
Affluent	9	6.6%	3	2.2%	31	22.8%
Elite	3	2.2%	5	3.7%	22	16.2%

Table 1. Overview of the respondents.

n = 38	Smoker		Ex-Smoker	
	n	%	n	%
Type of cigarette				
Kretek	7	18.4%	4	10.5%
White	13	34.2%	10	26.3%
Kretek & White	0	0.0%	4	10.5%
Age started smoking				
< 16 years	3	7.9%	4	10.5%
16–20 years	14	36.8%	14	36.8%
> 20 years	3	7.9%	0	0.0%
Years of smoking				
< 11 years	5	13.2%	10	26.3%
11–20 years	7	18.4%	1	2.6%
21–30 years	2	5.3%	1	2.6%
31–40 years	6	15.8%	2	5.3%
> 40 years	0	0.0%	4	10.5%
Number of cigarette smoked per day				
1–10	7	18.4%	7	18.4%
11–20	12	31.6%	7	18.4%
> 20	1	2.6%	4	10.5%
Duration of smoking per cigarette				
1–5 min	18	47.4%	10	26.3%
6–10 min	2	5.3%	7	18.4%
> 10 min	0	0.0%	1	2.6%
Other tobacco consumption				
Yes	0	0.0%	0	0.0%
No	20	52.6%	18	47.4%

Table 2. Questions about smoking habits only asked to smokers or ex-smokers.

Questions	Yes		No	
	n	%	n	%
Dentist visit during smoking period (n = 38)				
Smoker	20	52.6%	0	0.0%
Ex-smoker	10	26.3%	8	21.1%
Smoking status question by dentist (n = 136)				
Smoker	20	14.7%	0	0.0%
Ex-smoker	10	7.4%	8	5.9%
Never-smoker	40	29.4%	58	42.6%
Advised to stop smoking (n = 38)				
Smoker	18	47.4%	2	5.3%
Ex-Smoker	9	23.7%	9	23.7%
Provision of information related to the dangers of smoking (n = 38)				
Smoker	16	42.1%	4	10.5%
Ex-smoker	7	18.4%	11	28.9%
Smoking cessation counseling by dentist (n = 38)				
Smoker	10	26.3%	10	26.3%
Ex-smoker	5	13.2%	13	34.2%

Table 3. Questions about dentists' role in the smoking cessation process of a patient. Question 2 was asked to all respondents (136), whereas the other questions were only asked to smokers or ex-smokers.

Results

Data were gathered over 6 working days from December 7 to 19, 2017. A total of 138 respondents were interviewed, but 2 were

excluded because of inconsistent answers in the screening questions from the interviewer. An overview of the details of the respondents is described in Table 1.

The majority of respondents were female (58.8%). Furthermore, 98 (72.1%) respondents claimed to have never smoked, 18 (13.2%) were ex-smokers, and 20 (14.7%) were smokers. Most smokers were in the age groups 21–30 and 41–50 years (5.1% in each group), most ex-smokers were in the 21–30 age group (4.4%), and those who never smoked were mostly in the 21–30 age group (33.1%). All the respondents were educated to higher education (university graduate) level, with 9 (6.6%) smokers, 12 (8.8%) ex-smokers, and 47 (34.6%) never-smokers. Nine (6.6%) smokers came from an affluent economic status, 5 (3.7%) ex-smokers came from an elite class, and 31 (22.8%) ex-smokers came from an affluent class. All respondents were asked whether their dentist questioned their smoking status. The majority of smokers (20; 14.7%) and ex-smokers (10; 7.4%) answered that they were asked by their dentist, whereas most non-smokers (58; 42.6%) answered no.

Those who said they were smokers and ex-smokers (38 people) were then asked about their smoking habits. The majority of both groups [13 (34.2%) people in the smoker group and 10 (26.3%) ex-smokers] answered that they only consumed white cigarettes. Fourteen people from each group (36.8% each) said they started smoking around the age 16 to 20 years. Seven out of 20 (18.4%) smokers had smoked for 11–20 years, whereas 10 (26.3%) ex-smokers had smoked for less than 11 years before they stopped. Most smokers (12; 31.6%) smoked 11–20 cigarettes per day, whereas most ex-smokers varied between 1–10 and 11–20 cigarettes per day (7; 18.4% each). The majority of both groups [18 (47.4%) smokers and 10 (26.3%) ex-smokers] also said they took around 1–5 min to smoke a cigarette. None of the respondents said they consumed other forms of tobacco besides cigarettes. The ex-smokers were asked how long it had been since they stopped smoking, and 13 out of 18 (72.2%) answered 1–5 years (Figure 1).

In addition to smoking habits, smokers and ex-smokers were also asked about their dental visits. The majority of both groups [20 (52.6%) smokers and 10 (26.3%) ex-smokers] answered that they had visited their dentists during their smoking period. The interviewer also asked about the role of their dentist in smoking cessation. Eighteen (47.4%) said they were advised to stop or reduce their cigarette

consumption, yet ex-smokers were equally divided between whether they were advised or not (9; 23.7% each). Sixteen (42.1%) smokers said they were given information about the dangers of smoking by their dentist, whereas most ex-smokers (11; 28.9%) said they were not given any information. When asked whether their dentists gave counseling during the smoking cessation, 10 (26.3%) smokers said they were given counseling, whereas the other 10 (26.3%) said they were not. Furthermore, 13 (34.2%) ex-smokers said they were never given counseling by their dentist.

Respondents were then asked whether they were aware of the relationship between smoking habits and drug addiction. Sixty (44.1%) non-smokers answered “Yes,” whereas the majority of smokers (14; 10.3%) said they had no knowledge about this. Ex-smokers were equally divided between “Yes” and “No,” with 9 (6.6%) respondents each (Figure 2).

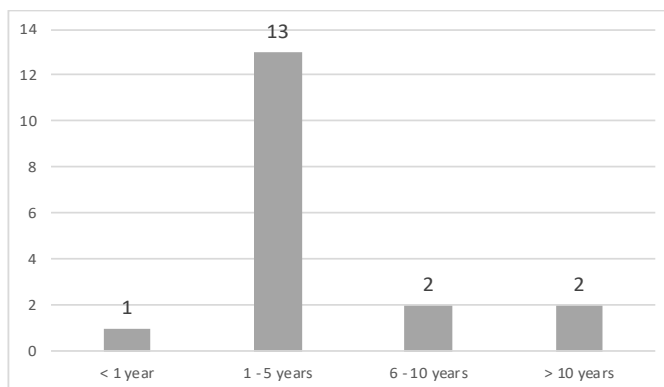


Figure 1. Number of years since ex-smokers stopped their smoking habit

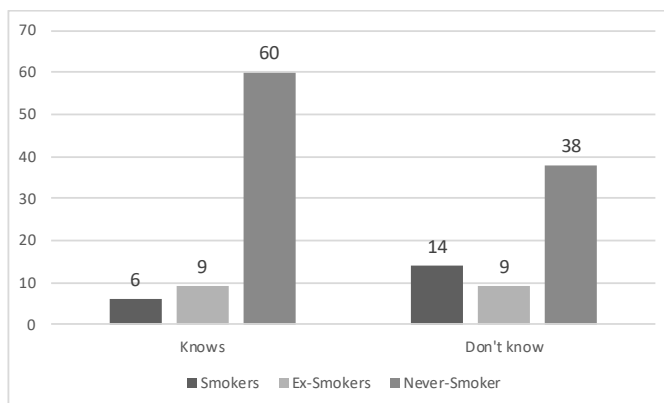


Figure 2. Patient's knowledge of the relationship between smoking habits and drug addiction.

Discussion

Twenty (14.7%) respondents were categorized as smokers, 18 (13.2%) were ex-smokers, and 98 (72.1%) were never-smokers, and there were more male smokers and ex-smokers than females in these categories. This is in agreement with the findings of Basic Health Research 2013, stating that 47.5% of everyday-smokers were male.³ The sum of the ex-smokers (13.2%) was larger compared with the World Health Organization (WHO) survey that stated 3.3%.² The proportion of smokers and non-smokers are in line with findings in India in 2016 on the prevalence of tobacco consumption in dental patients, showing that 22.68% respondents consumed tobacco, whereas 77.31% did not.¹³

According to Indonesia Basic Health Research 2013, most smokers were in the 30–34 age group. Diliprao et al. (2016) showed that most smokers were in the 16–30 age group.¹³ These data are similar to the findings of the present study. It is a concern that smoking habits that begin at an early age could result in severe health consequences; for example, nicotine addiction may result in narcotics addiction.⁴ In the long-term, smoking habits could provoke heart disorders and stroke. Smoking could also affect an individual's general physical condition, such as reduced endurance, lung capacity, and organ growth.^{14,15} Those who begin smoking at an early age and smoke a pack a day also have reduced life expectancy by around 7 years.¹⁶

The present study found that most smokers had a university graduate background. On the contrary, data from Basic Health Research and WHO showed that most smokers came from a lower educational background. However, in Jordan, 28.6% of 650 university students were smokers.¹⁷ It was also found that most smokers in the present study were in the affluent economic group, which contradicted the findings of Basic Health Research 2013 that stated that most smokers (26.9%) came from middle to low economic groups.³ This contradiction may be attributed to the more specific location of the RSKGM in Jakarta that may have influenced the higher economic and education status in patients.

The onset age of smoking habits was quite dispersed, but more than 50% of smokers and ex-smokers began at age 16–20 years

(73.7% out of 38). This is in agreement with WHO research stating that most smokers in Indonesia began smoking by the age of 17.² A study by Sonti and Kumar in 2014 on the smoking habits of patients in Chennai, India, showed the majority of patients (64.5%) started smoking by the age of 21–25 years.¹⁸ Haddad and Malak reported that most smokers (82.3%) started smoking by the age of 15. This was due to environmental changes and stress caused by a highly demanding education system.¹⁷ Sonti and Kumar also reported that 77% of smokers spent 1 to 15 years smoking (36). They also stated that most smokers (63%) consumed 1–5 cigarettes per day, demonstrating further differences compared with our findings.

In the present study, all those who reported smoking habits stated that they did not consume any kind of tobacco other than cigarettes. Based on Basic Health Research, the percentage of usage of other types of tobacco, especially smokeless tobacco, is relatively small (2.5%),³ whereas, in India, usage of other types of tobacco was 51.82% due to different cultures between the 2 countries.¹³ Most smokers (14; 70% of total smokers) also stated they did not have any knowledge about the relationship between smoking habits and drug addiction, whereas, in 2007, research in America found that 73% of drug abusers were smokers.¹⁹ Other studies also showed that nicotine in cigarettes is an addictive substance and acted as a gateway to cocaine addiction.^{20,21}

Most smokers and ex-smokers said they were given information about the dangers of smoking by their dentist, but 60.5% said they were never given cessation counseling. However, Ford et al. stated that 47% of smokers said they would feel motivated if they were supported by their dentist.²² Kadtana et al. also reported that 43.52% of smokers believed that their dentist could help them through smoking cessation.¹² Terrades et al. reported a higher percentage, stating that 60% of smokers believed their dentist could help them to stop.²³ Information about the relationship between smoking and drug addiction should be emphasized in education to help society to understand that smoking habits not only have a direct impact on health but may also lead to more serious behaviors such as drug addiction.

The present study highlights that dentists do not provide enough information or counseling

to help smoking cessation in patients, despite their important role in educating patients and making them aware of the dangers of smoking. The private and personal relationship between the dentist and their patients provides effective conditions in which to give counseling.^{24,25}

Conclusions

Differences between the findings of our study and those of other studies may be due to geographic and cultural differences. However, the present study shows that in RSKGM, dentists still need to improve and increase their role in motivating and helping patients to stop or reduce their smoking habits. This includes providing proper information and counseling to those in need and performing more in-depth research to give information about the patients' smoking habit patterns and characteristics to help health workers determine future preventive and curative steps.

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