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Perception of smoke-free policies among workers in an Italian Local Health Agency: survey of opinions, knowledge and behaviours

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Abstract

Aim: *This study evaluated the opinions and knowledge of the Health-Care-Workers and other employees about smoking in the workplace and investigated their perceptions about the implementation and strengthening of smoke-free policies and their views of proposed smoking cessation course.*
Methods*: This cross-sectional study analyzed data resulting from a questionnaire administered in the Local Health Agency of Rieti (Italy). Comparisons have been made according to smoking status of participants: Ever Smokers (ES) or Never Smokers (NS).*
Results: *The study was conducted on a sample of 300 workers, the majority of whom think that the smoking ban is not observed in the workplace due to lack of respect for colleagues (59.2% of NS vs 40% of ES, p=0.022). Exposure to Secondhand smoke (SHS) is reported by 15.2% of ES and 30.3% of NS (p=0.006). About 50% of the participants think that the smoking ban has led to an improvement in the quality of interpersonal relationships. Strengthening the smoking ban through frequent inspections would be very effective according to 78% of ES and 88% of NS (p=0.043); having smoking cessation courses within the agency would be considered useful by 56% of ES and 68% of NS (p= 0.064). Relatively few respondents knew of the association between smoking and bladder cancer (35.2% of ES and 47.2% of NS, p=0.061), and asthma exacerbation (66% of ES and 77% of NS, p=0.040). Logistic regression models adjusted for age, gender, work categories and smoking status show that ES report that they are less likely to be exposed to SHS (OR= 0.42, 95% CI 0.22-0.78, p=0.006) and to think that people smoke because of lack of respect (OR= 0.46, 95% CI 0.24-0.87, p=0.018). More frequent inspections (OR= 0.50, 95% CI 0.26-0.95, p=0.037) and smoking cessation courses (OR= 0.61, 95% CI 0.37-1.00, p=0.053) are considered less effective by ES.*
ES are less likely to know that smoking is a cause of bladder cancer (OR= 0.54, 95% CI 0.32-0.90, p=0.019) and asthma exacerbation (OR= 0.53, 95% CI 0.31-0.92, p=0.023). Fifty-seven percent of current smokers would like to quit, but only 41% would join a cessation course in the agency.
Conclusion: *The results obtained may be used to analyze the effectiveness of tobacco control policy and programs aimed at freeing companies from smoke. Policy makers should provide the best possible protection for workers against exposure to SHS, in particular with enforcement of the smoking ban and smoking cessation courses tailored to maximize potential benefits for both workers and employers.*

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Introduction

Environmental Tobacco Smoke (ETS), also known as Secondhand smoke (SHS) or passive smoking, is a pollutant made up of a complex mixture of chemicals, some of which are carcinogens. Exposure to ETS is causally associated with adverse health effects, including lung cancer and heart disease in adults, exacerbation of asthma, lower respiratory illnesses and other diseases in children and infants. On 10 January 2005, the Italian Government banned smoking in all indoor public places and, as a direct effect of the ban, the level of passive smoking has decreased (1-5).

Several studies have suggested that smoke-free policies may result in a short-term reduction in hospital admissions (6-9). Prohibition of smoking in certain settings, reduces the exposure of non-smokers to SHS and creates an environment that may help smokers to reduce or quit smoking (10, 11). The proportion of persons who report that their workplace is smoke free has increased over time. American studies report that individuals exposed to SHS at work are more likely to be young, to have fewer years of education, to be smokers themselves, and to be manual labourers or to work in service positions (12, 13).

Workplace smoking bans appear to decrease cigarette consumption and smoking prevalence (14, 15). Despite the potential benefits of non-smoking policies (16), research on the effects of smoking bans on Health Care Workers (HCWs) and employees is scarce and only few studies have evaluated the impact of smoke-free legislation on SHS exposure among non-smokers (17-19).

Health care facilities are among the most influential settings for promoting abstinence from smoking and smoke-free environments. As such, health professionals have an important role to play in tobacco control (20).

This study sought to explore the opinions and knowledge of HCWs and employees about smoking, their perceptions and opinions on the implementation and strengthening of smoke-free policies and the behavior of current smokers about a cessation course.

Methods

We conducted the study following the guidelines suggested by STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) (21).

Study design, setting and participants

This cross-sectional study analyzed data resulting from questionnaires compiled by HCWs and other employees of the Local Health Agency of Rieti (Italy) between February and November 2012.

The survey took indications from the Lazio Regional Prevention Plan 2010-2012 in relation to the project: "Promotion of intervention models in public and private companies to eliminate secondhand smoke exposure and smoking cessation" (22).

The regional working group which includes agency representatives, scientific and social partners identified the location to intervene. The Local Health Agency of Rieti was chosen because it has implemented smoke-free policies for many years.

All subjects gave their consent to the processing of their personal data; they declared that they were aware that these data were in the category of sensitive data and agreed that the data resulting from the research, should be treated in an anonymous and collective form

for scientific purposes according to the Declaration of Helsinki (23).

Survey questionnaire

The questionnaire had three sections.

The first section concerned demographic data: age, gender, occupational field and educational level; the second section investigated opinions on smoking, perceptions about the application and respect of the smoking ban and views on the implementation and strengthening of smoke-free policies; the final section, for smokers, included items about their smoking behavior and their intention to participate in an agency cessation course.

The participants'response rate was 100%.

Study size

We estimated, using Statcalc-Epi Info 3.4, the numbers of participants needed for the survey, as follows:

- population size: 1564 (total workers employed in the Local Health Agency of Rieti on December 31, 2012);
- expected frequencies of the exposure to SHS in any setting: 31.2% (24);
- worst acceptable result, lower than that predicted: 26.2%.

According to these parameters, the minimum required sample with a confidence level of 95% was 272 HCWs and other employees. This figure was increased by 10% in order to err on the safe side and finally, 300 participants were included.

The physician in charge of the surveillance of the health of the employees (the so called "medico competente") provided the list of workers and the participants were chosen randomly from these.

Variables and Statistical analysis

We compared opinions and knowledge of the health of the employees about smoking and about interventions to reduce or quit smoking. We analyzed perceptions, opinions on the implementation and strengthening of smoke-free policies. Participants were categorized according to their smoking status as "Ever Smokers" (ES, including current smokers and ex-smokers) and "Never Smokers" (NS).

Descriptive statistics was presented using frequencies, percentages, frequency tables for qualitative variables and mean ± standard deviation (SD) for quantitative variables.

For the univariate analyses the χ^2 test with continuity correction was used and, where necessary, Fisher's exact probability test.

Binary logistic regression models were used to identify possible factors associated with opinions and knowledge about smoking, implementation and strengthening of smoke-free policies. The results are presented as Odds Ratio (OR) with 95% of Confidence Intervals (CI 95%). Logistic Regression analysis was calculated for each item of opinions and knowledge in the questionnaire adjusting for age, gender, work category and smoking status (ES versus NS) (25).

Statistical analysis was performed using SPSS 19.0 for Windows® and statistical significance was defined using $p<0.05$.

Results

Characteristics of the sample

The study was conducted on a sample of 300 employees, 199 HCWs (67%) and 101 from other categories (33%): 190 males (63.3%) and 110 females (36.7%), the mean age was 46.13 (±9.69).

Twenty-five percent of the sample held senior positions (physicians, biologists, engineers, veterinarians, senior administrative), 25.4% were technical

staff, 22% lower grade administrative staff and 27.7% nurses. Thirty-seven percent of the respondents had an academic degree of whom 15% were medical doctors. Thirty-five percent of the participants were Ever Smokers (ES) and 65% Never Smokers (NS).

Opinions and knowledge of the workers towards smoking

Fifty-seven percent of ES and 67% of NS think that the smoking ban is not respected. Those who think it is respected attribute this to smokers' self-discipline and/or increased awareness (36% for ES and 28% for NS) and to effective agency policies and active surveillance in the workplace (6% of ES and 5% of NS). Lack of respect for other colleagues is the main reason for continuing to smoke despite the ban according to 59.2% of NS, but for less than half of ES (p=0.022). Among HCWs and other employees who indicated that the smoking ban is not respected, the places generally chosen for smoking, which differ significantly between ES and NS, are the wards (4.8% of ES and 11.8% of NS, p=0.044) and the toilet (22.9% of ES and 35.4% of NS, p=0.035).

Exposure to SHS is reported by 15.2% of ES and 30.3% of NS (p=0.006).

About 50% of the participants think that the introduction of the smoking ban in the workplace has led to an improvement in the quality of interpersonal relationships, but without significant differences between ES and NS. However, about 10% think that it has led to more conflict. Strengthening the smoking ban in all workplaces through frequent inspections would be very effective according to 78% of ES and 88% of NS (p= 0.043); having smoking cessation courses within the agency would be considered useful by 56% of ES and 68% of NS but this difference between ES and NS is not statistically significant (p= 0.064).

Physical and psychological dependence on smoking is recognized by more than 90% of ES and NS.

While most respondents were aware that smoking may cause Chronic Obstructive Pulmonary Disease (COPD), lung cancer, and myocardial infarction, relatively few knew of its association with bladder cancer (35.2% of ES and 47.2% of NS, p=0.061), and asthma exacerbation (66% of ES and 77% of NS, p=0.040).

These results are shown in table 1.

Binary logistic regression

The comparisons between ES and NS adjusted for age, gender, work categories and smoking status are shown in table 2.

The statistically significant results were that ES are less likely to think that people smoke on agency premises because of lack of respect for others (OR= 0.46, 95% CI 0.24-0.87); they are less likely to think that the toilets are used for smoking (OR= 0.52, 95% CI 0.30-0.91) and they are less likely to be exposed to SHS (OR= 0.42, 95% CI 0.22-0.78).

They also think that more frequent inspections (OR= 0.50, 95% CI 0.26-0.95) and smoking cessation courses (OR= 0.61, 95% CI 0.37-1.00) would be less likely to be effective.

In addition, ES are less likely to know that smoking is a cause of bladder cancer (OR= 0.54, 95% CI 0.32-0.90) and asthma exacerbation (OR= 0.53, 95% CI 0.31-0.92).

Smokers' behavior on agency courses to quit smoking

Current smokers were 76 of the 105 ES and two third of them started smoking between 15 and 20 years of age. Eighty-four percent of the smokers (38/45) who had started smoking before the age of 20 would not participate in an agency course.

Smokers that would like to quit were 57% (43/76), but only 41% (31/76) would

Table 1 - Opinions and knowledge of HCWs and employees in the health agency (Ever Smokers and Never Smokers).

Items of the questionnaire		Ever Smokers		Never Smokers		p*
		N (105)	%	N (195)	%	
Is the smoking ban observed within the Agency premises?	No	60	57.1	130	66.7	0.132
People do not smoke on Agency premises because:	smokers' self-discipline and/or increased awareness	38	36.2	55	28.2	0.195
	effective agency policy and/or surveillance	7	6.7	10	5.1	0.773
People smoke on Agency premises because: (more than one answer possible)	lack of respect for others	24	40.0	74	59.2	**0.022**
	smoking is pleasant and/or addictive	93	88.6	158	81.0	0.127
	lack of effective agency policy or surveillance	72	68.6	143	73.3	0.460
Do you think smokers generally choose the following places to smoke?	Office (yes)	28	26.7	64	32.8	0.331
	Ward (yes)	5	4.8	23	11.8	0.074
	Toilet (yes)	24	22.9	69	35.4	**0.035**
	Common room (yes)	22	21.0	49	25.1	0.503
	Outside (yes)	51	48.6	90	46.2	0.780
Are you personally exposed to secondhand smoke in the agency?	Yes	16	15.2	59	30.3	**0.006**
Do you think that the introduction of the smoking ban has led to a change in the quality of interpersonal relationships?	Yes	62	59.0	114	58.5	0.980
If yes, which one of these two?	Increased respect	50	47.6	84	43.1	0.527
	Increased conflic	11	10.5	26	13.3	0.593
In order to prevent smoking in the work place, do you think the following would be useful?	To have frequent inspections (yes)	82	78.1	171	87.7	**0.043**
	To have information and training of workers (yes)	76	72.4	151	77.4	0.405
	To have smoking cessation courses (yes)	59	56.2	132	67.7	**0.064**
	To have specific agency policy (yes)	73	69.5	144	73.8	0.507
Do you think tobacco smoke may cause physical and/or psychological dependence?	Yes	96	91.4	179	91.8	0.913
Do you think tobacco smoke may cause the following diseases?	Chronic obstructive pulmonary disease (yes)	88	83.8	165	84.6	0.986
	Lung cancer (yes)	96	91.4	187	95.9	0.181
	Bladder cancer (yes)	37	35.2	92	47.2	**0.061**
	Myocardial infarction (yes)	69	65.7	134	68.7	0.688
	Asthma exacerbation (yes)	69	65.7	151	77.4	**0.040**

* Comparisons have been made with the complementary category not described.

Table 2 - Binary logistic regression for the outcome opinions and knowledge of HCWs an employees.

Variables of the questionnaire	Age (years)	Gender (Female/Male*)	HCWs (Yes/No*)	Ever Smokers (Yes/No*)
Is the smoking ban observed on Agency premises? (Yes)				
OR (CI 95%), p	1.00 (0.98-1.03), 0.776	1.27 (0.78-2.07), 0.341	1.54 (0.92-2.60), 0.096	1.44 (0.88-2.36), 0.147
People do not smoke on Agency premises because:				
smokers are self-disciplined and/or aware of the problem				
OR (CI 95%), p	1.01 (0.98-1.04), 0.264	1.31 (0.79-2.18), 0.291	1.31 (0.76-2.24), 0.319	1.37 (0.82-2.28), 0.227
of effective agency policy and/or surveillance				
OR (CI 95%), p	0.95 (0.91-1.00), 0.068	0.69 (0.23-2.07), 0.517	2.43 (0.67-8.72), 0.172	1.43 (0.51-3.97), 0.489
People smoke on Agency premises because:				
of lack of respect for others				
OR (CI 95%), p	0.98 (0.95-1.02), 0.468	1.32 (0.70-2.49), 0.384	0.71 (0.38-1.31), 0.276	**0.46 (0.24-0.87), 0.018**
smoking is pleasant and/or addictive				
OR (CI 95%), p	1.01 (0.97-1.04), 0.557	0.67 (0.35-1.27), 0.224	1.58 (0.84-2.98), 0.150	1.82 (0.89-3.69), 0.096
of lack of effective agency policy or surveillance				
OR (CI 95%), p	0.98 (0.95-1.01), 0.226	1.05 (0.62-1.77), 0.854	0.97 (0.56-1.66), 0.920	0.81 (0.47-1.36), 0.431
Do you think smokers generally choose the following places to smoke?				
Office (yes)				
OR (CI 95%), p	0.99 (0.96-1.01), 0.478	0.86 (0.51-1.46), 0.594	0.67 (0.40-1.12), 0.131	0.77 (0.45-1.32), 0.349
Ward (yes)				
OR (CI 95%), p	0.97 (0.93-1.01), 0.177	0.73 (0.30-1.75), 0.491	0.56 (0.25-1.25), 0.161	0.40 (0.15-1.10), 0.078
Toilet (yes)				
OR (CI 95%), p	0.97 (0.95-1.00), 0.070	1.5 (0.89-2.51), 0.123	1.30 (0.76-2.23), 0.333	**0.52 (0.30-0.91), 0.022**
Common room (yes)				
OR (CI 95%), p	1.00 (0.97-1.03), 0.746	1.21 (0.69-2.10), 0.497	0.61 (0.35-1.06), 0.082	0.79 (0.44-1.40), 0.425
Outside (yes)				
OR (CI 95%), p	1.00 (0.98-1.02), 0.774	1.07 (0.67-1.72), 0.762	0.80 (0.49-1.29), 0.367	1.10 (0.68-1.77), 0.690
Are you personally exposed to secondhand smoke in the agency? (Yes)				
OR (CI 95%), p	0.96 (0.93-0.99), 0.012	1.26 (0.72-2.21), 0.404	0.82 (0.47-1.44), 0.518	**0.42 (0.22-0.78), 0.006**

Do you think that the introduction of the smoking ban has led to a change in the quality of interpersonal relationships? (Yes)				
OR (CI 95%), p	1.01 (0.98-1.03), 0.353	1.17 (0.72-1.91), 0.511	**0.49 (0.29-0.82), 0.007**	1.02 (0.63-1.68),0.908
Increased respect (yes)				
OR (CI 95%), p	0.99 (0.96-1.01), 0.322	0.63 (0.39-1.02), 0.063	1.48 (0.91-2.41), 0.111	0.85 (0.53-1.40),0.534
Increased conflict (yes)				
OR (CI 95%), p	0.99 (0.96-1.03), 0.805	0.63 (0.29-1.35), 0.235	0.64 (0.32 –1.30),0.219	0.81 (0.38–1.72),0.584
In order to prevent smoking in the work place, do you think the following would be effective?				
To have frequent inspections (yes)				
OR (CI 95%), p	1.01 (0.98-1.05), 0.274	0.78 (0.41-1.50), 0.467	0.56 (0.27-1.18), 0.130	**0.50 (0.26-0.95),0.037**
To have information and training of workers (yes)				
OR (CI 95%), p	1.01 (0.98-1.04), 0.286	0.78 (0.45-1.35), 0.383	0.97 (0.55-1.70), 0.919	0.76 (0.44-1.32),0.336
To have smoking cessation courses (yes)				
OR (CI 95%), p	1.00 (0.98-1.03), 0.497	0.80 (0.49-1.31), 0.377	0.98 (0.59-1.63), 0.954	**0.61 (0.37-1.00),0.053**
To have specific agency policy (yes)				
OR (CI 95%), p	0.97 (0.95-1.00), 0.134	0.69 (0.41-1.16), 0.166	1.21 (0.71-2.08), 0.471	0.84 (0.49-1.43),0.532
Do you think tobacco smoke may cause physical and/or psychological dependence? (Yes)				
OR (CI 95%), p	**0.91 (0.86-0.96), 0.002**	0.93 (0.39-2.21), 0.870	1.90 (0.80-4.53), 0.143	1.06 (0.44-2.57),0.886
Do you think tobacco smoke may cause the following diseases?				
Chronic Obstructive Pulmonary Disease (yes)				
OR (CI 95%), p	1.02 (0.98-1.05), 0.215	0.90 (0.47-1.72), 0.760	1.14 (0.59-2.19), 0.686	0.91 (0.47-1.76), 0.796
Lung cancer (yes)				
OR (CI 95%), p	1.01 (0.97-1.06), 0.454	1.16 (0.41-3.28), 0.779	0.41 (0.11-1.48), 0.175	0.45 (0.16-1.22), 0.117
Bladder cancer (yes)				
OR (CI 95%), p	1.01 (0.98-1.03), 0.378	**1.70 (1.05-2.78), 0.031**	**1.83 (1.10-3.05), 0.019**	**0.54 (0.32-0.90), 0.019**
Myocardial infarction (yes)				
OR (CI 95%), p	1.00 (0.97-1.02), 0.980	1.44 (0.85-2.43), 0.167	**1.86 (1.12-3.08), 0.016**	0.81 (0.48-1.36), 0.444
Asthma exacerbation (yes)				
OR (CI 95%), p	0.98 (0.95-1.00), 0.177	1.23 (0.71-2.15), 0.446	**1.90 (1.11-3.26), 0.019**	**0.53 (0.31-0.92), 0.023**

*Reference group.

Table 3 - Smokers' behaviour on agency courses to quit smoking.

Items of the questionnaire for current smokers (N=76)			**If your health agency offers a smoking cessation course, would you join in?**		
			Yes (N=31)	No (N=45)	p
How long after awakening do you light your first cigarette?		Within 30 minutes	11 (35.5%)	9 (20%)	0.214
		After 30 minutes	20 (64.5%)	36 (80%)	
Would you like to quit smoking?		Yes	25 (80.6%)	18 (40%)	**0.001**
		No	6 (19.4%)	27 (60%)	
Have you ever tried to quit smoking?		Yes	23 (74.2%)	27 (60%)	0.300
		No	8 (25.8%)	18 (40%)	
	How many times have you ever tried?	One time	5 (31.3%)	11 (68.7%)	0.257
		More than one time	18 (52.9%)	16 (47.1%)	
	If yes, how have you tried ?	Alone	22 (95.7%)	27 (100%)	0.460*
		With medical/pharmacological/ psychological/anti-smoking center support	1 (4.3%)	0	
According to you, what is your chance of quitting smoking?		High/very high	12 (37.5%)	20 (62.5%)	0.793
		Low/very low	19 (43.2%)	25 (56.8%)	
For those who want to quit, how do you plan to quit?		Alone	13 (58.1%)	13 (82.2%)	0.306
		With medical/pharmacological/ psychological/anti-smoking center support	12 (41.9%)	5 (17.8%)	

*Fisher's correction.

join a cessation course in the agency (Tab. 3).

Among those who stated that they would participate in a cessation course, 81% (25/31) would like to quit, whereas among those who would like not participate in the course, only 40% (18/45) want to quit (p= 0.001).

Thirty-one smokers stated that they would join a cessation course and five of them (16%) have already failed to quit after one attempt while 18 (58%) have failed twice or more times previously.

Almost all of those who had previously tried to quit had not sought medical, pharmacological/psychological or anti-smoking center support.

Although 32 of the 76 smokers state that they believe that they have a high chance of quitting, this does not seem to influence their desire to join a cessation course; 37.5% of those 32 who believe they have a high chance of quitting would participate compared with 43.2% of those who chance of quitting is perceived as low (p=0.619).

Thirty-four percent of smokers plan to quit without any help. Among those who wish to quit, 52% (13/25) of those who would attend the course believe that they will quit by themselves, whereas 72.2% (13/18) of those who would not attend the course believe they can quit alone.

Discussion

The National Prevention Plan 2010-2012 (PNP), published by the Italian Ministry of Health contains indications that all the Italian regions should follow to prepare their own Regional Prevention Plans (PRP) (26). Strategies to improve the well-being and lifestyle of individuals has become a priority, and so specific projects of PRPs should be developed in each health agency, and in particular, should address the problem of secondhand smoke (SHS) and the adoption of smoke free policies (22, 27). Smoking in workplaces and indoor public areas is an important source of SHS exposure. Increasingly, communities and workplaces have adopted smoke-free policies, which prohibit the smoking of tobacco products, with the primary intent of providing the best possible protection for workers from repeated exposure to SHS (28).

To our knowledge, this is the first survey focusing on smoke-free policies in an Italian Local Health Agency.

Most of the HCWs and other employees in our study thought that the smoking ban is not observed; our findings are inconsistent with several studies that have assessed levels of compliance of general workplace-smoking bans which have reported increased compliance after its implementation, with follow-up periods ranging from 6 months (29), to one year (30) up to several years (31,32). However, we have found a different perception of SHS between ES and NS: a greater proportion (30%) of NS claimed to be exposed to SHS compared with ES (15%), and NS believe that the reason why smokers do not observe the ban is lack of respect for fellow workers. This finding is consistent with a study conducted among the staff of three Italian Northern hospitals (Faenza, Forli and Rimini) in which it has been found that 93% of 1480 non-smokers were exposed to SHS in the hospital environment (33).

Non-smokers' assertiveness at work may complement existing smoking regulations by conveying to smokers the message that non-smoking is the norm. This may be reinforced by the implication that deviance from a norm or regulation will incur some form of social sanction or disapproval (34). The large decrease in exposure to passive smoking is probably an effect of the increasing awareness of the negative effects of passive smoking

among the general public in combination with legislative action (35,36).

Several studies have shown that smoke-free policies at work can reduce the consumption of cigarettes and encourage quitting by eliminating pro-smoking cues (14, 37). Our results show that frequent inspections in the workplaces and smoking cessation courses held by the agency may be useful, but some ES are not convinced. This has not been noted in other studies of workplace smoking-cessation programs, which have claimed to be beneficial for both smokers and non-smokers and to be cost-effective (38-40).

We found that knowledge about tobacco causing diseases such as COPD and lung cancer are well-known by both ES and NS. However, bladder cancer and asthma exacerbation are not recognized as being caused by smoking among ES compared with NS. This seems to suggest a lower perception of these risks in the high risk group, ES. This is verified by logistic regression. The causal relationship between active cigarette smoking and bladder cancer may lead one to suspect that SHS may also contribute to bladder carcinogenesis. As with direct cigarette smoke, SHS contains arylamines, which are established bladder carcinogens (41). Conditions at work are one of the causes of asthma exacerbation, as are environmental exposures in other settings. A statement of the American Thoracic Society concluded that 15% of new-onset asthma among adults was due to occupation, but that there could be much more sickness and loss of productivity due to work-related exacerbation of existing asthma (42). The finding that former smokers had significantly fewer exacerbation events than current smokers suggests that cessation of a non-sensitizing exposure can be beneficial (43).

In our study most of the participants who thought of quitting smoking, would participate in a agency cessation course: the workplace is generally where people spend the second-largest amount of time after their homes and as a setting for smoking-cessation programs has several advantages (44, 45).

Among those who stated that they would participate in a cessation course, 81% would like to quit, whereas among the non-participants only 40% want to quit. That these two proportions differ significantly is not surprising, but that only 25 of the 43 smokers, who stated that they wish to quit would attend an agency cessation course is notable. The great majority of participants, including smokers, supported and had positive attitudes to an agency smoke-free policy as found by the Eurobarometer survey (46). Besides, as in other studies (17), a significant proportion was interested in smoking cessation.

The main strength of our study is the fact that it provides the first estimates of perception and knowledge of the smoking ban in a sample of HCWs and other employees in an Italian Health Agency. Nevertheless, these data may not be nationally representative because the study involved only workers from a single health agency in Rieti, in the Center of Italy. However, the representativeness of the sample, the relatively large sample size and the design of data collection (face-to-face interview), may reduce information bias.

Nonetheless, the current study has several limitations related to its cross-sectional design including issues of recall and response bias; larger and more representative samples from prospective studies would make results more generalizable. Moreover, we did not collect data before the smoking ban, and no surveys are available on SHS exposure in a representative sample of the Italian population before the smoking

ban. Thus, we could not evaluate the impact of the smoking ban in terms of decline of SHS exposure before and after the smoking ban. In addition, a drawback of the present study is that there are no objective measurements of active or passive smoking; results from previous studies indicate that self-reported data on these issues are fairly reliable (47, 48).

Countries increasingly bear the burden of tobacco use and may face particular challenges in implementing smoke-free policies, including greater social acceptability of tobacco use and shorter histories of programs and policies to combat tobacco-related dangers (49).

In conclusion, the results obtained in our study may be used to indicate the effectiveness of a tobacco control policy and programs aimed at freeing the workplace from smoke.

Given the known health risks of SHS exposure, policy makers should provide the best possible protection for workers against exposure to SHS and health hazards of passive smoking should be tackled with effective smoke-free policies, in particular with the enforcement of the smoking ban and smoking cessation courses tailored to maximize potential benefits for both workers and employers.

Riassunto

Percezione delle politiche di intervento per eliminare l'esposizione al fumo di tabacco tra i lavoratori di un'Azienda Sanitaria Locale italiana: indagine su opinioni, conoscenze e comportamenti

Obiettivo: Questo studio ha valutato le opinioni e le conoscenze di professionisti sanitari e impiegati relativamente al fumo nel luogo di lavoro e ha studiato la loro percezione sull'implementazione e il rafforzamento delle politiche per eliminare l'esposizione al fumo e la loro visione su un eventuale corso di disassuefazione.

Metodi: Questo studio *cross-sectional* ha analizzato i dati derivanti da un questionario somministrato nell'Agenzia Sanitaria Locale di Rieti (Italia). Sono stati confrontati i partecipanti secondo il loro stato di fumatore (F) o non fumatore (NF).

Risultati: Lo studio è stato condotto su un campione di 300 lavoratori, la maggioranza dei quali pensa che il divieto di fumo non sia rispettato sul luogo di lavoro per mancanza di rispetto verso i colleghi (59,2% dei NF vs 40% dei F, p=0,022). Il 30,3% dei NF e il 15,2% dei F ha riportato di essere esposto al fumo passivo (p=0,006). Circa il 50% dei partecipanti pensa che il divieto di fumo ha portato ad un miglioramento nei rapporti interpersonali. Rafforzare il divieto di fumo tramite frequenti controlli potrebbe essere molto efficace secondo il 78% dei F e l'88% dei NF (p=0,043); pianificare corsi per la disassuefazione in azienda sarebbe utile per il 56% dei F e il 68% dei NF (p=0,064).

Relativamente pochi partecipanti conoscono l'associazione tra fumo e tumore alla vescica (35,2% dei F e il 47,2% dei NF, p=0,061), e la possibilità che si aggravi la sintomatologia asmatica (66% dei F e il 77% dei NF, p=0,040).

Modelli di regressione logistica aggiustati per età, genere, categoria lavorativa e abitudine al fumo mostrano che i F si ritengono meno esposti al fumo passivo (OR= 0,42, 95% CI 0,22-0,78, p=0,006) e hanno meno probabilità di pensare che si fumi per mancanza di rispetto verso i colleghi (OR= 0,46, 95% CI 0,24-0.87, p=0,018). Controlli più frequenti (OR= 0,50, 95% CI 0,26-0,95, p=0,037) e corsi di disassuefazione (OR= 0,61, 95% CI 0,37-1,00, p=0,053) sarebbero considerati meno efficaci secondo i F. I F sono meno informati del fatto che il fumo possa essere causa di tumore alla vescica (OR= 0,54, 95% CI 0,32-0,90, p=0,019) e crisi asmatiche (OR= 0,53, 95% CI 0,31-0,92, p=0,023).

Il 57% dei fumatori abituali sarebbe intenzionato a smettere, ma soltanto il 41% parteciperebbe al corso in azienda.

Conclusioni: I risultati ottenuti potrebbero essere utilizzati per analizzare l'efficacia delle politiche di controllo sul fumo di tabacco e per programmi mirati a liberare le aziende dal fumo. I decisori dovrebbero fornire ai lavoratori la più ampia protezione dal fumo passivo, in particolare con il rafforzamento del divieto di fumo e la proposta di corsi di disassuefazione adatti a massimizzare i potenziali benefici sia per i lavoratori che per i datori di lavoro.

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