

Smoking behaviour among schoolteachers in the north of the Syrian Arab Republic

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عادة التدخين بين معلّمي المدارس في شمال الجمهورية العربية السورية وسيم مزيك وفواز مزيك ومأمون المشرف

خلاصة: إن توصيف عادة التدخين في مجتمعات معينة، أمر له أهميته بالنسبة للمخططين وأصحاب القرارات في المجال الصحي. ولقد درسنا أنماط التدخين بين معلّمي المدارس في سراقب بالجمهورية العربية السورية، ووجدنا أن 52.1% من المدرسين الرجال و12.3% من المدرسات يمارسون التدخين في الوقت الراهن. وكان المدرسون الرجال يدخنون 20 ± 1 من السجائر يومياً بينما تدخن المدرسات 10 ± 4 من السجائر. وكان وسطى مدة التدخين بين الرجال 16 ± 1 من السنين، بينما كان ذلك الوسطى بين المدرسات 9 ± 4 من السنين. وكان معتادو التدخين يوماً الذين يشترون الأصناف الأجنبية ينفقون 22.0% من دخلهم الشهري على السجائر، بينما ينفق مدخنو الأصناف المحلية 12.2% من دخلهم الشهري. وكان معظم المدرسين المدخنين يفعلون ذلك جهاراً في المدرسة. وبخلاصة القول إن التدخين بين معلّمي المدارس ينبغي أن يحظى بالاهتمام لما له من علاقة وثيقة بتوجهات صفار السن وممارساتهم تجاه التدخين.

ABSTRACT Characterizing the smoking habit in specific populations is important for health planners and policy-makers. We studied the smoking patterns of schoolteachers in Saraqeb, Syrian Arab Republic and found that 52.1% of males and 12.3% of females were current smokers. Male daily smokers smoked 20 ± 1 cigarettes per day, females 10 ± 4 . Males had smoked for, on average, 16 ± 1 years, females for 9 ± 4 years. Daily smokers buying foreign brands spent 22.0% of their monthly income on cigarettes, while those smoking local brands spent 12.2%. Most teachers who smoked did so openly at school. Smoking among teachers should receive attention because it is closely related to the attitudes and practices of young people towards smoking.

Comportement en matière d'usage du tabac chez les enseignants dans le nord de la République arabe syrienne

RESUME La caractérisation du comportement fumeur dans des populations spécifiques est importante pour les planificateurs sanitaires et les responsables de l'élaboration des politiques. Nous avons étudié les modes d'usage du tabac chez les enseignants de Saraqeb (République arabe syrienne) et avons trouvé que 52,1% des hommes et 12,3% des femmes étaient des fumeurs au moment de l'étude. Les hommes qui fumaient quotidiennement consommaient 20 ± 1 cigarettes par jour, les femmes 10 ± 4 . Les hommes fumaient depuis 16 ± 1 années en moyenne, les femmes depuis 9 ± 4 années. Les fumeurs quotidiens qui achetaient des marques étrangères dépensaient 22,0% de leur revenu mensuel pour les cigarettes tandis que ceux qui fumaient des marques locales dépensaient 12,2%. La plupart des enseignants qui fumaient le faisaient ouvertement à l'école. Le tabagisme chez les enseignants devrait faire l'objet d'une attention parce qu'il est étroitement lié aux attitudes et pratiques des jeunes en matière d'usage du tabac.

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Received: 23/03/99; accepted: 01/07/99

Introduction

Smoking is a major public health problem worldwide and a formidable barrier to development in many developing countries [1]. While the smoking epidemic has been on the decline in most industrialized countries, in developing countries data suggest that cigarette smoking is increasing by 3% per year [2]. It is estimated that the total number of deaths attributable to smoking worldwide will increase from 2.5 million in 1995 to 12 million by the year 2050 [3]. Most of these deaths will occur in developing countries. This reversed trend, shifting the tobacco epidemic to developing countries, can be attributed to two main causes: poor public health institutions and the expansion of tobacco companies into foreign markets. Tobacco exports from the United States of America more than doubled in the period between 1986 and 1995 [4]. In order to draw a global comparison map of the tobacco epidemic, the World Health Organization (WHO) has encouraged Member States to use standardized survey methods to assess smoking prevalence [5]. Active intervention relies on an accurate description of the smoking problem, both globally and within each society. The Syrian Arab Republic started using standardized smoking-related surveys in 1997 [6,7].

During a study investigating smoking in high-school students we noticed teachers were smoking openly on school premises [8]. Young people are particularly sensitive to social pressures from adults and peers during the early stages of their development. Play identifies five stages of smoking initiation in adolescents [9]. In the early stages, attitudes and beliefs about the use of smoking are formed and adult/sibling role models who smoke cigarettes play an important role in influencing the perception of smoking as a normal behaviour.

Many students look upon teachers as a source of guidance and as role models. Moreover, while a smoking parent or peer may be expected to influence only a few closely involved adolescents, a teacher who smokes can set a bad example for far greater numbers. On the other hand, the involvement of teachers in school-based smoking-prevention programmes is a crucial element in the success of such programmes [10].

We therefore felt that identifying the smoking practices of schoolteachers was an essential step in understanding the dynamics of smoking among adolescents at school and in planning school-based tobacco prevention programmes.

Subjects and methods

Because poor record-keeping and lack of cooperation had complicated our sampling efforts in the past, we opted to survey all schoolteachers (elementary, middle and secondary) in a medium-sized town in the north of the Syrian Arab Republic called Saraqeb (total population 53 157 according to unpublished registry records for 1998). During a 2-month period, we visited all of the town's schools and those of nine of the closest villages. The schools surveyed were 16 mixed and 3 male-only schools. We distributed self-administered questionnaires to all the teachers and collected them on the same visit. The core questions about tobacco use and smoking categories identified conformed to recent WHO guidelines [3]. The response rate exceeded 90% for all participating schools.

The characteristics of the teachers are shown in Table 1. Respiratory illness was defined as an illness accompanied by respiratory symptoms, (cough, purulent sputum, difficulty in breathing or wheezing) that

were severe enough to warrant absence from work for at least 1 day.

We used SPSS (version 7.5) for statistical analysis. Data were expressed as mean \pm standard error of the mean. Univariate analysis was used to elicit associations between variables using the chi-squared test and Spearman correlation coefficient as appropriate. The difference between two means was assessed by the *t*-test or Mann-Whitney U test depending on data distribution. Differences between means were assessed by the Kruskal-Wallis test. $P < 0.05$ was considered significant, and a two-sided test was completed for all analyses.

Results

The prevalence of current smokers among schoolteachers was 52.1% for males and 12.3% for females. The prevalence of daily smoking was 44.3% for males and 5.7% for females (Table 2). For male daily smokers, the mean number of years they had been smoking daily was 16 ± 1 years and the mean number of cigarettes smoked daily was 20 ± 1 cigarettes per day. For female daily smokers, the mean number of years they had been smoking daily was 9 ± 4 years and the mean number of cigarettes smoked daily was 10 ± 4 cigarettes per day. There was no association between the age of children taught and current smoking status for both sexes ($P > 0.05$). Also, no association was found between current smoking status and marital status for both sexes ($P > 0.05$). Neither the actual age of the teacher nor their length of tenure was related to their current smoking status ($P > 0.05$). The duration of daily smoking correlated directly with the number of cigarettes smoked daily for males ($P = 0.002$) but not for females ($P > 0.05$). Most daily smokers (63%) usually smoked their first cigarette

Table 1 Main characteristics of Saraqeb schoolteachers, 1998

Level	Males		Females	
	No.	Age (years)*	No.	Age (years)*
Elementary	108	37 ± 1	93	31 ± 1
Middle	37	35 ± 1	16	26 ± 1
Secondary	41	40 ± 1	12	32 ± 2
Total	186	37 ± 1	121	31 ± 1

*Values are expressed as mean \pm standard error of the mean

Table 2 Main smoking categories of Saraqeb schoolteachers, 1998

Smoking status	Males (%)	Females (%)
Ever tried smoking	78.1	34.4
Ever been a smoker	70.8	11.5
Daily smoker	44.3	5.7
Current smoker	52.1	12.3
Ex-smoker	12.4	0.0

Table 3 Reasons for brand preference of Saraqeb schoolteachers, 1998

Reason	Brand preference	
	Local (%)	Foreign (%)
No specific reason	4.7	7.2
Prefer it (taste, quality, less harmful)	37.5	32.1
Light	3.1	28.6
Cheap	43.8	10.7
Available	0.0	7.1
Used to it	9.4	7.1

within 1 hour of waking up in the morning and 81.5% of daily smokers smoked on school premises. Responses to the question, "What do you think are the most harmful effects of smoking?" are shown in Figure 1.

Of the current male smokers, 61% usually smoked local brands, 21% smoked foreign brands and 18% switched brands. Of the current female smokers, 20% smoked local brands, 47% foreign brands and 33% switched brand. The mean duration of daily smoking differed between one-brand smokers (17 ± 1 years) and brand switchers (11 ± 2 years) ($P = 0.04$). Also, the mean number of cigarettes smoked daily differed between one-brand smokers (20 ± 1) and brand

switchers (14 ± 2) ($P = 0.01$). The reasons behind the brand choice of one-brand smokers are given in Table 3. Daily smokers who smoked foreign brands spent on average more of their monthly income on cigarettes than those who smoked local brands or were brand switchers ($P = 0.01$). The proportion of income spent on cigarettes correlated with the number of cigarettes consumed daily, regardless of brand ($P = 0.003$).

The mean number of episodes of respiratory illness in the past year differed significantly between current smokers (2 ± 0.2) and current non-smokers (1 ± 0.1) ($P < 0.001$). Of current daily smokers, 71.7% wanted to stop smoking and 62% of them

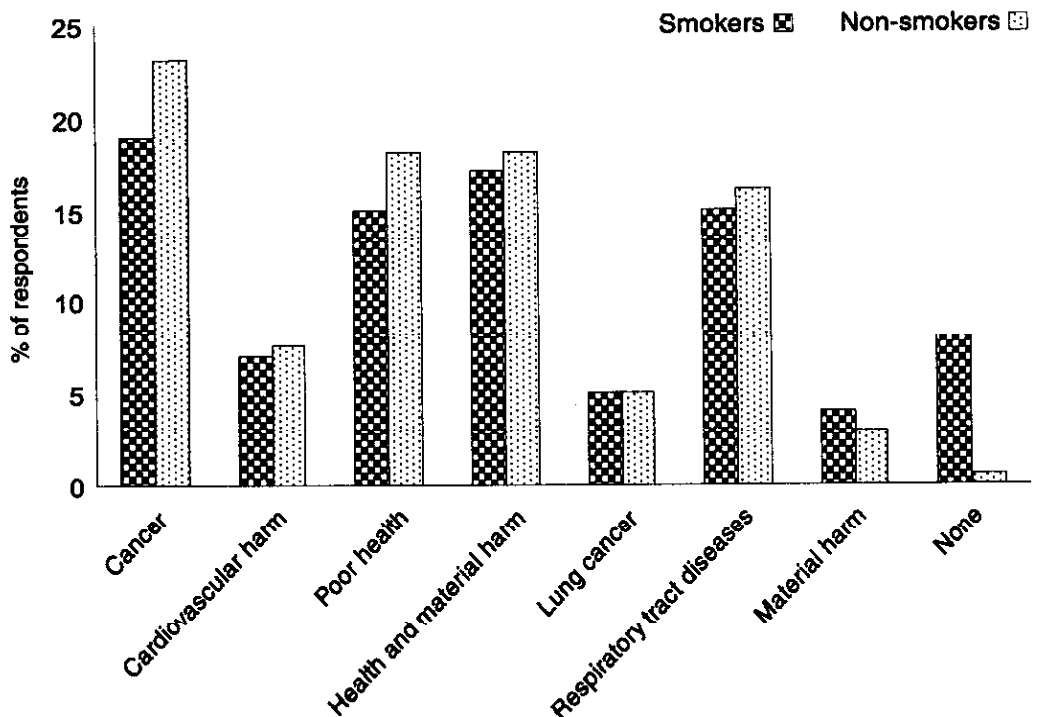


Figure 1 Responses of smokers and non-smokers among Saraqeb schoolteachers as to the main danger of smoking

had tried to stop smoking at least once in the previous year. The quit ratio for males was 19.8% but could not be calculated for females.

Discussion

It is evident from our data that smoking is a serious problem in this population, especially for males. The number of male teachers smoking daily (44.3%) exceeds that reported for certain other adult populations in the north of the Syrian Arab Republic and also exceeds WHO figures for this region, estimated at 35% for males [6,7,11]. This indicates that teachers in the Syrian Arab Republic, as a group, have an increased risk of smoking.

Teachers who smoke are unlikely to be strict in executing any school policies regarding students' smoking, especially if they themselves smoke openly on school premises. They are also less likely to tackle convincingly the issue of smoking by their students. In our sample, 81% of teachers who smoked daily reported smoking regularly at school. The constant presence of teachers smoking around students during school hours will increase their perception of smoking as a normal behaviour and provide a disproportionately high exposure to smokers. Adolescents who estimated relatively high levels of smoking prevalence in society have been found more likely to try smoking, more likely to become smokers, and even to increase their levels of smoking over a period of 1.5 years [12]. Shean demonstrated that beliefs about the number of adolescents and adults who smoked were a predictor for the adoption of smoking in young adulthood 8 years later [13]. School policies in the Syrian Arab Republic forbid teachers from smoking in classrooms but are vague about teachers smoking in the

presence of students outside the classroom. This issue should receive proper attention from policy-makers to insure that, as a minimum, teachers may only smoke in restricted areas that students have no access to.

We observed that male teachers who smoked daily smoked on average one pack a day and that about two-thirds of smoking teachers smoked their first cigarette within 1 hour of waking up in the morning. Those figures are similar to those obtained for physicians in the north of the Syrian Arab Republic [7]. They show that smoking is well established in this population, making it difficult to induce any dramatic change in teachers' smoking habits. It would probably be more practical to start with limiting students' exposure to teachers who are smoking.

Smokers and non-smokers in this population were equally aware of the harmful effects of smoking (Figure 1). However, they both underestimated the effects of smoking on the cardiovascular system, a leading cause of tobacco-related morbidity and mortality [14]. Less than 10% of respondents reported the effects of smoking on the cardiovascular system as the major threat to smokers. Also, teachers underestimated other specific smoking-attributable risks (Figure 1), indicating that they are generally ill informed about the specific health consequences of smoking. Denial of any ill effect from smoking was more prevalent among smokers (8%) than non-smokers (0.5%). This was also evident from the fact that, although most current smokers were aware of the dangers connected with smoking, a quarter of them said that they did not wish to stop smoking. On the other hand, 62% of daily smokers had tried at least once in the past year to stop smoking, apparently with little success since ex-smokers constituted only 12.4% of males

surveyed, a quit ratio of 19.8%. Taken together these facts indicate that teachers need, and would benefit from, external help in the form of information about the harmful effects of smoking, smoking cessation counselling and interventions.

Most males smoked local brands, while the opposite was true for female smokers. This could be explained by the fact that local brands in the Syrian Arab Republic are sold at about half the price of foreign ones. Since male smokers tend to consume more cigarettes, the price of cigarettes is more of an issue for them. Male daily smokers who smoked foreign brands spent almost double the amount spent by local-brand smokers and significantly more than brand switchers ($P = 0.01$). Also, 43.8% of local-brand smokers indicated that their choice of local brands was dictated by the product's cheap price (Table 3). In comparison, only 9.4% of university students who smoked gave cheap price as the reason for their brand selection (Maziak W et al., unpublished data). This shows that teachers, usually a low-income population in the Syrian Arab Republic, are price sensitive. Given what is known about the efficacy of tobacco taxation in curbing the spread of smoking, an increase in taxation on local brands seems a feasible measure for reducing smoking in this and other low-income sectors in our society [15].

However, about a third of foreign-brand smokers chose to do so because they thought those brands were lighter, compared to only 3.1% of local-brand smokers. This belief is probably due more to advertising than any scientific basis, since most foreign brands smoked in the Syrian Arab Republic have no labels indicating their tar and nicotine content.

Brand switchers had been smoking daily for a shorter period and smoked fewer

cigarettes per day than one-brand smokers, indicating that brand switching is a transitional period in the process of becoming a heavy smoker.

Current smokers had suffered more from respiratory illnesses in the past year than non-smokers ($P < 0.001$). This fact, together with the significant cost of smoking, could be incorporated into the design of smoking interventions for teachers.

Conclusions

Smoking has reached dangerous proportions among schoolteachers in the Syrian Arab Republic. Given the important role teachers have in forming the attitudes and beliefs of developing children, schools can either serve as a powerful channel for promoting healthy behaviours, or they can serve as places where children are exposed to unhealthy behaviours and pressures. Many students look to teachers for exemplary behaviour and guidance and consider teachers to be role models. By smoking in front of their students, teachers may distort this image and affect their ability to positively influence students, and may even contribute to the general acceptance by students of smoking as a social norm.

Our data indicate the importance of tackling the issue of smoking in schools on two fronts: students and teachers. Teachers should be advised against smoking in front of their students and be given incentives not to do so or to stop smoking. Helping teachers to stop smoking is in schools' best interests, as it should result in fewer working days lost from smoking-related health problems. It is also important that school policies on teachers smoking should be clarified and implemented. The current smoking habits of teachers means that un-

less a dramatic change in current behaviour is achieved, our schools will continue to serve as a smoking friendly environment for our young.

Acknowledgement

This work was supported by the Osseimi Foundation.

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