

Smoking in Saudi Arabia. *Some constructive comments*

To the Editor

We have read carefully a review article by Dr. Bassiony,¹ and found it very informative and guiding to researchers with interest in tobacco control nationwide. We offer our comments that might be further useful to the readers.

Notably the Global Tobacco Surveillance System (GTSS) initiated and developed by the concerted efforts of World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC), and the Canadian Public Health Association that aims to enhance countries' capacity to monitor tobacco use, guide national tobacco prevention, and control programs, and facilitate comparison of tobacco-related data at the national, regional, and global levels. The Global Youth Tobacco Survey (GYTS), the Global Health Professions Students Survey, the Global School Personnel Survey (GSPS), and the Global Adult Tobacco Survey are school- and household-based surveys, and part and parcel of the GTSS. Most importantly all these types of aforesaid surveys use standard methodology, sampling technique, reliable questionnaire, and statistical data analysis including specific formula for weighting variable responses. The valid questionnaire has core and optional questions, the latter could be modified to fit to the respective country's sensitivities. Since its inception, the landmark GYTS has been conducted in many countries worldwide and consequently enormous data were collected and evidence-based strategies were developed to control tobacco, and its products used globally.²⁻⁶ To be more precise, in our 2001 survey participants were restricted to only males in Riyadh region rather than both genders due to sociocultural reasons, and that is the caveat of our survey,⁷ and not of the GYTS as reflected in this review.¹ Notably, we also conducted the GYTS in 2007 country wide, and this time we took into account both genders. The findings of both surveys are comparable (Table 1). We are preparing 3 comprehensive manuscripts from 3 surveys carried out in youth and health professionals, which will soon be submitted to scientific journals for publication. However, Al-Bedah reported smoking prevalence in the adult population (15 years+), which is as follows; overall prevalence, male 34%, females 37.5%, Saudi 19.7%, non-Saudi 33.4%, Arabs 37.4%, and non-Arabs 28.8%.

Another issue is that smoking is potentially dangerous in all age bands with regard to developing respiratory, cardiovascular, and cerebrovascular diseases but at higher risk may be its 2 extremes not one as informed in this article,¹ children and adolescents and elderly

population as both categories have additional multiple problems such as multiple medical diseases, being on multiple medications, and risk taking behaviors in terms of taking junk food, driving rashly, abusing alcohol, and stimulants, adolescent crisis.⁸ The pattern of diseases and risk taking behaviors in both populations with high prevalence of smoking finally leads to higher morbidity, and mortality, which is fortunately preventable. In fact, the co-occurring diseases and multiple risk taking behaviors, and smoking is one of them, further increase the risk of developing serious consequences in the 2 age extremes. In a related development, it is a sheer misperception that youths just experiment with smoking and in this cohort the prevalence of ever-smoking tends to largely decrease,¹ but conversely most of them continue to smoke in adulthood, and some of them quit and relapse regrettably both with heavy smoking and higher failure rate. So, the decrease in ever-smoking in youth would be marginal. Notably in children and youth, one of the most important factors of initiating smoking is peer pressure, not highlighted in this review,¹ that is largely not specific to smoking but to many other similar behaviors including alcohol, and drug abuse.

In addition to the included studies in this review, we like to highlight that we have also carried out one study in a psychiatric population,⁹ and have written many rapid responses on tobacco use published in *bmj.com* rapid responses.^{8,10,11} The prevalence of current smoking (58%) was relatively high in this vulnerable, psychiatric population. Around 39% were nonsmokers and 3% were ex-smokers. Notably, almost all patients were suffering from chronic serious co-morbid mental disorders, and this co-occurrence has many implications including etiologic, diagnostic, therapeutic, prognostic, outcome, and high vulnerability to develop serious physical disorders especially cardiovascular diseases (CVD), cerebrovascular accidents (CVA), tuberculosis (TB), and lung cancer. The psychiatric patients that smoke tend to require higher doses of antipsychotic drugs as compared to those not smoking, and consequently the cost of treatment increases tremendously together with enhanced liability to frequent relapses and other potentially dangerous behaviors associated with smoking.⁹

Some consistent findings of most tobacco surveys conducted in the Eastern World need to be briefly underscored; the prevalence of current smoking is on the increase and consequently morbidity, and mortality would increase as well; gap between the prevalence rate of smoking in both genders is decreasing, which is the highest in Qatar and the lowest in Egypt, interestingly Shisha smoking, traditional smoking in the Middle Eastern world is a preferential way of smoking tobacco

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Table 1 - Comparison of the Global Youth Tobacco Survey (GYTS) 2001 and 2007 (13-15 years school students).

Prevalence	GYTS 2001		GYTS 2007	
	M %	M %	F %	Total %
Ever smoked cigarettes	34.5	39.5	16.1	29.7
Current use of any tobacco products	22.2	24.2	11.2	19.3
Current cigarette smokers	10.8	13.0	2.7	8.6
Current use of other tobacco products	13.1	15.8	9.9	14.2
Currently smoke shisha	6.8	10.4	3.7	8.7
Never smokers to initiate smoking next year	6.7	19.9	17.3	20.6
<i>Knowledge and attitudes</i>				
Smokers have more friends - boys/girls think	58.3/42.6	44.1	32.2	----
Smokers look less attractive - boys/girls think	36/27.1	32.9	24.6	----
<i>Access & availability - current smokers</i>				
Smoke at home	15.5	----	----	16.8
Buy cigarettes in a store	46.7	52.9	29.0	47.7
No purchase refusal of cigarettes due to age	84.2	73.2	100	77.7
<i>Environmental tobacco smoke</i>				
Smoke exposure at home	30.6	28.9	26.4	29.4
Smoke exposure outside home	39.0	45.1	31.6	38.9
Ban on smoking in public places	74.2	75.8	72.2	73.4
ETS is harmful	60.1	----	----	60.8
One or more parent smokers	18.5	----	----	24.8
Most or all friends are smokers	10.6	----	----	10.1
<i>Cessation - current smokers</i>				
Desire to stop smoking	72.8	75.9	61.2	70.9
Tried to quit smoking during the last year	54.8	66.9	46.2	62.8
Ever received help to quit smoking	84.7	77.6	78.4	80.3
<i>Media and Advertising</i>				
Saw antismoking media messages in the last 30 days	69.4	----	----	64.2
Saw pro smoking ads on billboards in the last 30 days	66.2	63.3	58.4	63.1
Saw pro smoking ads in newspaper or magazine in the last 30 days	73.0	60.6	58.7	63.0
Have an object with a cigarette brand logo on it	12.2	12.8	9.1	15.5
Free cigarette offer by a tobacco company representative.	27.6	9.3	5.3	13.3
<i>School</i>				
Dangers of smoking taught in the class over the last 1 year	54.1	66.1	52.9	59.3
Reasons discussed why people their age smoke	47.1	46.2	22.2	36.7
Effects of tobacco use taught in the class over the last 1 year	49.5	52.2	36.4	46.7

ETS - environmental tobacco smoke, M - male, F - female

by females,^{10,12} and the import of tobacco products is constantly on the rise especially in Saudi Arabia, from 1000 tons in year 1961 to 46,000 tons in year 2006 costing 8 million SR to 1750 million SR. In the year 2007, the cost of imported tobacco was approximately 1.85 billion SR. It is wise to know that the potential dangers of other tobacco products including Shisha smoking, and second hand smoke are at par with active cigarette smoking. Finally, the review by Bassiony reminds all of us very strongly that there is an urgent need to tailor a more specific surveillance system for monitoring smoking behavior in the community. Although the epidemic of smoking is apparent in Saudi Arabia, its incubation period is yet to be over and hence with time more acute and chronic physical diseases, potentially dangerous tumors, and cancers, CVD, and CVA and other related medical and psychological disorders will emerge. This is all calling for implementing

comprehensive tobacco control programs as required by the WHO framework convention on tobacco control; especially a price rise of all tobacco products used by consumers; increase in tobacco import duty; total ban on tobacco sale to minors; complete ban on all types of tobacco advertisements, and promotional activities; smoking cessation programs; continuing health education to the public by health professionals; effective ban on smoking in all public places; and finally, the health promotion on a large scale highlighting the spiritual/religious, economic, and health benefits of not smoking.

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Reply from the Author

First of all I would like to thank Dr. Al-Bedah and Dr. Qureshi for their valuable comments and the recent data they provided. I fully agree with them as regards implementing a comprehensive tobacco control program, which will reduce morbidity, and mortality in Saudi Arabia. According to the results of the second GYTS survey in 2007 (Table 1), which was provided by my colleagues, smoking of other tobacco products was higher than cigarettes smoking especially in females (more than 3 times), and these findings should be considered in any prevention program. Also, total ban on tobacco sale to minors is very important as you can notice in Table 1. In addition, while 64% of the students saw antismoking media messages during the last month, almost the same percentage saw pro-smoking advertisements on billboards, in newspapers, and magazines during the same period, which should be prevented. In my article,¹ I reviewed 11 studies that included females as we should have enough data on both genders to plan and implement prevention programs. These studies did not find any difficulties in recruiting females and did not violate the rules of the Saudi culture by including them. I am glad that the recent GYTS survey (2007) included girls as well as boys and the sociocultural factors did not prevent the investigators to do that as in 2001. With respect to the prevalence of smoking in adults, I think when you review 11 studies in young adults and 10 studies in adults it can give you an idea of the whole picture with the range, median, and outliers. The review also included different groups such as university students, soldiers, primary care clients, health care professionals, and adults from the community. I think that this will be more beneficial than to look at one study with its own limitations and referral bias. In addition, I did not include the study of smoking in psychiatric patients as you cannot generalize the findings from a specialized group with a very high prevalence of smoking (58%) to the general population. In the review, I reported that elderly people who smoke are at higher risk for cardiovascular and cerebrovascular diseases since they have other risk factors such as diabetes, hypertension, and hyperlipidemia, and I do not agree with my colleagues that children and adolescents have the same risk factors. However, I believe that smoking is the royal gate to substance abuse in adolescents and both of them could be the result of risk taking behaviors in addition to other psychological, social, and biological factors. Smoking and substance abuse could increase the morbidity and mortality in this age group but for different reasons such as respiratory diseases, and road traffic accidents. I would like also to clarify that experimentation is a well

known stage before smoking or substance abuse, and some researchers believe that it is an important stage during normal psychological development.¹³ In my review this is not the same cohort but different groups from different studies at different times, so you cannot conclude that smoking is largely decreasing or increasing with age. However, in the GYTS survey (2007), almost 30% of school students ever smoked cigarettes, while only 9% still smoke, which means that 21% stopped smoking after experimentation. In the GYTS 2001 more than two-thirds of the adolescents, who smoked cigarettes at certain time in their life, stopped smoking at least in this stage. Lastly, I agree with my colleagues that peer pressure is an important factor in initiating smoking but when you do a review you have to report the findings of the studies you are reviewing not your opinion. However, it is interesting that the GYTS survey in 2007 found that only 10% of the sample has smoking friends, which means that 90% smoke without peer pressure and this should be considered in future research.

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Errata

In the article: **Diabetic profile of Pakistani pilgrims in Makkah during Hajj season (2007-2008)**, Saudi Medical Journal 2010; 31 (3): 328-330 the authors' names should have appeared as follows:

Muhammad A. Sharif, MBBS, FCPS (Histopath),
Asad Mahmood, MCPS, FCPS (Medicine),
Javed-ur Rehman, MBBS, FCPS (Surg),
Muhammad Vaseem, MBBS, FCPS (Surg),
Kaswar S. Ansari, MBBS, FCPS (Medicine),
Sajid Munir, MBBS.

In the article: **Protective effects of vitamin E against myocardial ischemia/reperfusion injury in rats**, Saudi Medical Journal 2010; 31 (2): 142-147 the abbreviations NTG in the legends of Figures 4 & 6 should have appeared as: GTN.