

Letter to the Editor

To convince and to inform: ethical issues in public health campaigns

Convencer e informar: questões éticas nas campanhas de saúde pública

To the Editor:

I have recently heard many people claim that tobacco consumption through a narghile session would be the equivalent to the smoke of more than 100 cigarettes. Having a skeptical opinion about information related to public health campaigns, in which the data often seem to be carelessly collected and frequently exaggerated, I decided to seek out the source of the information. I identified it as being the review article "Noncigarette forms of tobacco use", by Carlos Alberto de Assis Viegas, published in this Journal, vol. 34, n. 12.

The text, however, presents problems in rigor, and the information provided is, at least, dubious.

First, see the fourth paragraph after the subtitle "Narghile". It reads: "For each cigarette smoked, a cigarette smoker typically takes between 8 and 12 drags, each of 40-75 mL, over a period of 5-7 min, inhaling a total of 0.5-0.6 L of smoke. However, a narghile session typically lasts 20-80 min, or even longer, during which time the smoker takes 50-200 drags, inhaling a total of 0.5-1.0 L of smoke. Therefore, the narghile smoker inhales, in one session, the same quantity of smoke that a cigarette smoker would inhale if consuming 100 cigarettes or more."

If we consider the proportion between these smoke volumes, we will realize that it is impossible to make such an inference: a narghile session would not correspond, in volume of inhaled smoke, to more than 100 cigarettes, but to a number between 1 and 1.7 cigarettes.

However, such mistakes are likely due to typographical errors. In the article from which the information was extracted it is stated that each puff (and not one session) of narghile produces from 0.15 L to 1 L, and, therefore, the smoker "can inhale [rather than "inhales"] in a session (...) as much smoke as [one] would inhale consuming 100 cigarettes or more".⁽¹⁾ The numbers cause confusion. The explanation lies in the fact that the water does indeed filter out some of the nicotine, but the assimilation of the alkaloid regulates the quantity of smoke

inhaled; hence the astonishing volume produced in each puff.⁽²⁾

This last item, related to the relationship between the assimilation of nicotine and the volume of inhaled smoke is quoted in the last paragraph of that topic in the article in question. However, in the same passage, we read "the water used in the narghile absorbs some of the nicotine (approximately 5%), narghile smokers are nevertheless exposed to sufficient quantities of the drug to cause dependence". If we take into account the data provided in the fourth paragraph of the section, according to which "the composition of the tobacco used for this modality of consumption has no standard, and its nicotine content is estimated at 2-4%, compared with 1-3% for the tobacco used in cigarettes", we can conclude that the quantity of nicotine in the smoke after water filtering would still be greater than in the cigarette ($95\% \times 2-4\%$, resulting in a value between 1.9% and 3.8%). Therefore, narghile smokers would not inhale more smoke; on the contrary, they would, in theory, inhale less smoke. In fact, the article from which the information on filtering was extracted, more recent than the one by Shihadeh et al.,⁽¹⁾ does not reach the same conclusion that the latter does. The abstract of the former reads as follows: "a single session of waterpipe use produced a urinary cotinine level that was equivalent to smoking two cigarettes in one day".⁽³⁾

In short, in one of the articles cited it is stated that a narghile session can be the equivalent of 100 cigarettes or more, and it is justified by the hypothesis that there is a compensation between the nicotine filtering and the volume of each puff; whereas the other article discredits that justification, as it is stated that the water filters little nicotine, and the conclusion is that a full narghile session is the equivalent of smoking 2 cigarettes instead of 100 or more, in terms of the nicotine absorbed. Therefore, the information regarding the volume of smoke and the

filtering of the smoke through the water are incongruent.

We wonder what would cause a scientific text to present such carelessness in rigor. And I dare answer. The general error consists in selecting bits of information from different articles, the authors of which use diverse methodologies and obtain distinct results. The criterion seems to have been to present the most sensational data from each article. Indeed, we are not dealing with a scientific article, but with an article for the dissemination of material to the lay population, with the purpose of promoting the anti-smoking movement. But why present it in a scientific wrapping? The reason seems clear: to influence public opinion. However, would this not be a form of deception, even if promoting the public welfare? Would it be fair to induce people to repeat something incessantly, certain that they have the right piece of information, when in fact so many doubts hover around it? If the data are manipulated to convince people to alter or abstain from certain behaviors, which person or group dictates this morality—and on what grounds, since the facts on which it should be founded are altered to persuade the population of its benefits?

The fact to which I draw attention here does not seem to be isolated. It is likely that other large public health campaigns aimed at promoting changes of habit and of individual

practices present problems of the same nature. The debate regarding the implied ethical problems should certainly be broader than that currently observed.

Alexandre Amaral Rodrigues
Peer Reviewer for the Archives of
Ethics and Political Philosophy,
Philosophy Department,
School of Philosophy, Language and
Humanities,
University of São Paulo,
São Paulo, Brazil

References

1. Shihadeh A, Azar S, Antonios C, Haddad A. Towards a topographical model of narghile water-pipe café smoking: a pilot study in a high socioeconomic status neighborhood of Beirut, Lebanon. *Pharmacol Biochem Behav.* 2004;79(1):75-82.
2. World Health Organization. WHO Study Group on Tobacco Product Regulation [monograph on the Internet]. *TobReg Advisory Note: Waterpipe Tobacco Smoking: Health Effects, Research Needs and Recommended Actions by Regulators.* Geneva: WHO/TobReg; 2005 [cited 2009 Feb 22]. p. 3-4. Available from: http://www.who.int/tobacco/global_interaction/tobreg/Waterpipe%20recommendation_Final.pdf
3. Neergaard J, Singh P, Job J, Montgomery S. Waterpipe smoking and nicotine exposure: a review of the current evidence [abstract]. *Nicotine Tob Res.* 2007;9(10):987-94.