Electronic cigarette experimentation in the Malaysian city of Kuantan: Was there an association with the smoking status?

Sir,

We read with particular interest the study by Elkalmi et al. about electronic cigarette experimentation in the general public of Kuantan in Malaysia. We think some important information was not presented in the manuscript, and the authors need to provide some clarifications.

The authors examined factors that could be associated with electronic cigarette experimentation and use, such as sociodemographic factors and perceptions of harm. Technically, the authors present differences in the frequencies measured by Chi-square tests. To measure associations, it would have been more appropriate to perform logistic regression analyses and present the odds ratios.

Furthermore, considering that electronic cigarettes were developed as smoking substitutes, it is expected that use is mainly observed among smokers. However, the authors made no attempt to examine the association between electronic cigarette use and smoking status. Preferably, the latter should be classified as current, former and never smokers. A recent analysis of the Eurobarometer 2014 survey showed that being current or former smoker were the strongest correlates of electronic cigarette use even after adjusting for other factors in the multivariate analysis. In addition, adoption of use by never smokers was minimal; this is important in terms of identifying potential harm due to use by nonintended subpopulation (i.e., never smokers).

The authors report that electronic cigarette experimentation was more frequent in males compared to females. However, it is obvious from Table 2 of the manuscript by Elkalmi et al. that smoking was also by far more prevalent in males. Thus, there is a significant collinearity between gender and smoking status. In that context, evaluating the association between electronic cigarette use and smoking status is even more important because it could reject the hypothesis that gender is a major determinant of electronic cigarette use.

The authors interpreted the study findings by stating that electronic cigarette use is a problem for the Malaysian society, and this should alert healthcare providers and policy makers. It is a paradox that they identified electronic cigarettes as the problem (with only 2.8% prevalence), while smoking prevalence was 10-fold higher (29.9%). In reality, the study clearly showed that smoking remains a major problem for the society. On the contrary, the combination of high awareness of electronic cigarettes among smokers and low susceptibility of future use by never smokers is promising and could contribute to a decline in smoking prevalence without the adoption of use by never smokers.

Finally, a worrying finding, that has been observed in other countries too, is related to the perception of the relative harm of electronic cigarettes compared with tobacco cigarettes. Despite the lack of long-term epidemiological studies, there is no doubt that electronic cigarettes are by far less harmful than smoking. This is mainly due to the substantial differences between electronic cigarette aerosol and cigarette smoke chemistry, which results in levels of biomarkers of exposure among electronic cigarette users being similar to nonsmokers. The growing trend of smokers believing that electronic cigarettes are equally or more harmful than smoking is clearly a misperception and needs to be urgently addressed.

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Conflicts of interest

Two unpublished studies by KF were performed using unrestricted funds provided to the institution (Onassis Cardiac Surgery Center) by electronic cigarette companies in 2013 (>3 years ago). Two studies were funded by the nonprofit association AEMSA in 2013 and one study was funded by the nonprofit association TSFA in 2015. JLH has received speaker...
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honorarium and consultancy fees from Johnson and Johnson, Novartis, Pfizer, and Pierre Fabre.

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