

## Author's Reply

## Response to the Letter on the Gap of Cigarette and Hookah Smoking between Socioeconomic Groups in Iran: Effect of Inequalities in Socioeconomic Position

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In response to Dr. Emamian's comments about our published article,<sup>1</sup> we feel obligated to clarify some points. First, I should point out that the phrase, "As a researcher who first introduced this method in Iran" in Emamian's letter seems to be technically incorrect since only the developer of a technique or model can make such a bold claim. Merely applying an existing statistical model on some datasets does not provide anyone the right to refer to themselves as the introducer.

The Socioeconomic Status (SES) scores were calculated by Asgari et al<sup>2</sup> for the sixth round of the National Surveillance, a population-based survey of risk factors of non-communicable diseases in Iran. Since the results pertaining to this variable had been published, the variable was included in the dataset we obtained from the Ministry of Health and Medical Education. The authenticity of computation of this variable was double-checked and confirmed by A. Rafei, one of our coauthors who was also involved in Asgari's work. This was in fact one of the strengths of our study, which further supported the accuracy of our findings.

Reporting inequality according to different provinces of Iran based on outdated local unpublished data (2005) was not the aim of our study. It should also be mentioned that including a qualitative variable such as province (31 provinces in 2011) in the analyses would require inclusion of 30 dummy variables into the model, which could hardly lead to robust results considering the sparse data in some provinces. These kinds of models with too many variables also have problems in convergence. Furthermore, provincial subgroup analysis in such setting can yield results that are not in line with analyzing the whole data.

Although the *p* value of the decomposition analysis for

smoking was 0.093, the upper limit of the confidence interval of "difference" was notable (95% confidence interval: -2.9, 0.2). Therefore, investigating the factors affecting this gap in the first section of table 3 is fine (not unnecessary and misleading!), and finding variables with significant effects is not unusual and is not indicative of statistical error.

All our analyses, including the logistic regression and the Blinder-Oaxaca decomposition have been performed via robust standard errors, according to the structure of the data described in our Materials and Methods section. This is a routine and obvious action that should be taken for any data with a cluster structure, and mentioning it is unnecessary.

We included quantitative, ordered and dichotomous variables in the Blinder Oaxaca decomposition model, as is customary. Also, it is clear that in the presence of categorical variables, one has to create dummy variables! It is common to not report unnecessary details about inclusion of variables in such models, as done by Emamian et al.<sup>3-5</sup> So, Emamian is suggesting we follow a writing structure he has not followed in his previous publications.

Comparing our findings yielded from a nationally-collected data with the results of Emamian et al<sup>6</sup> and Moradi et al<sup>7</sup> was not appropriate since these two studies used local data collected from two cities in Iran, and doing so might have been misleading. On the other hand, Hosseinpour et al<sup>8</sup> did not report results from an Iranian dataset, and so could not be compared to our findings.

In our article, PH is a typo of "PGH" who is the first author. Initials of RA and HS should be AR and HA, respectively. There was a typo in the phrase of "Effect of Inequalities on Socioeconomic Position", as "on" should be

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“in”. This error occurred in the process of finalizing galley proof by layout Editor of *Archives of Iranian Medicine* journal.

These kinds of typos are not uncommon, as Emamian may reconsider the “informatics” and “decompression” in his letter entitled “Blinder-Oaxaca decomposition”.

As no one can claim that his/her article is flawless, we are always trying to improve our work using constructive criticism from our fellow researchers and colleagues, but most of the objections raised by Emamian are not correct. Anyhow, we appreciate his enthusiasm about our article and thank him for his comments.

#### Conflict of Interest Disclosures

None.

#### Ethical Statement


Not applicable.

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