

Peer Review Report

Review Report on Association between the Use of Tobacco Products and Food Insecurity among South Korean Adults

Original Article, Int J Public Health

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EVALUATION

Q 1 Please summarize the main findings of the study.

- 7.3% of adults surveyed reported food insecurity.
- Current tobacco use was associated with 1.36 (1.10–1.69) odds of reporting food insecurity compared with those who never used tobacco products.
- Younger participants, those with lower household income, less education, lower SES by employment categories, and separated/widowed/divorced participants who were tobacco users had greater odds of food insecurity. The strongest effects were seen for household income – low income smokers had an OR =18.13, 95% CI 10.98–29.94 and middle income smokers had an OR=6.61, 95% CI 4.09–10.67 of having food insecurity.
- Tobacco control policies could aid in relieving food insecurity, in particular by providing strategies that will contribute to improving poverty.

Q 2 Please highlight the limitations and strengths.

Strengths:

Use of large population based sample(s) of 21,063 adults from the Korea National Health and Nutrition Examination Surveys.

Consideration and examination of the effects of all tobacco products on food insecurity; not just combustible tobacco.

Thorough review of prior literature on smoking and food insecurity.

Important documentation of this problem and its policy implications.

Limitations:

The study is cross-sectional, and thus cannot address causation.

The lack of data on family member smoking is also a limitation.

The potential dose response effect for different groups of food insecurity and hunger are not explored due to combining several categories of food insecurity.

The discussion goes beyond the data in conjecturing that hunger caused by food insecurity may lead some people to smoke regularly due to the appetite suppression effects of nicotine.

There is no discussion of what strategies might be effective in mitigating food insecurity risk from tobacco; reference to the MPOWER strategies from WHO, and reflection of how or if they are being operationalized in South Korea would be helpful in setting the conclusion in context.

Similarly, there is no mention of the other ways that tobacco impacts nutrition, again a useful contextual grounding for potential policy interventions.

Q 3 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

Major comments: Food insecure without hunger, moderate food insecure with hunger, and severe food insecure with hunger were all combined into a single food insecure group – while this makes a single Odds Ratio easier to understand, it would be important to describe the prevalence for each of these groups and examine the odds of food insecurity group vs tobacco use for each separately. A dose response would be expected. This could be examined in a table or figure, and would add to the strength of the association.

The finding about alcohol appears to have been incidental; no hypothesis about this was presented. I assume there were many other potential mediating or moderating effects that were also examined and were not associated with the outcomes. This list of things NOT associated should also be discussed. One assumes that the drinkers have more discretionary income, but otherwise this finding is puzzling.

The effect of poverty is dramatic and should be more prominent in the abstract.

I am not aware of any studies examining the reasons for smoking among food secure vs food insecure groups, and while weight gain is an adverse side-effect of cessation and thinness a marketing theme for cigarettes in some culture, these reasons are not examined in their data. The Kim and Tosh paper studies a low SES population with ~40% reporting food insecurity; and they raise the question of nicotine effects on hunger but note that only one lab study has even examined this and that additional study is needed. I would suggest deleting lines 19–22 on page 12.

Discussion of family member smoking as a limitation is needed; IF the KNHANES surveys captured secondhand smoke exposure then this might be an additional exposure category that would possibly also explain food insecurity among other household members. These data do appear in the USA version of the NHANES some years, so if they used them this could add some perspective and understanding to those exposures and might further characterize the impact of tobacco use on the population.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

Yes.

Q 5 Are the keywords appropriate?

Yes

Q 6 Is the English language of sufficient quality?

Yes

Q 7 Is the quality of the figures and tables satisfactory?

Yes.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

Yes

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field

Q 12 Interest to a general audience

Q 13 Quality of the writing

Q 14 Overall scientific quality of the study

REVISION LEVEL

Q 15 Please make a recommendation based on your comments:

Major revisions.