Reviewer's report

Title: Association of smoking, physical activity, and dietary habits with socioeconomic variables: a cross-sectional study in adults on both sides of the Hungarian-Romanian border

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Reviewer: Donata Woitas-Slubowska

Reviewers report:

Title: Association of smoking, physical activity, and dietary habits with socioeconomic variables: a cross-sectional study in adults on both sides of the Hungarian-Romanian border

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Second revision, 26th of October 2011

Major Compulsory Revisions

Methods: In the answer to my review authors explained that “Health-related behaviors were measured by single question: one part of these measures was used primarily, while the other part was based on previous studies”. Readers would be interested in knowing:
- Who are the authors of these previous studies?
- Where these measures validated previously? Are these measures adequate to be used in epidemiological study of adult populations?

Methods, paragraph 7: “Smoking status of the respondents was described as never smokers, ex smokers or current smokers (smoking daily or occasionally) at the time of interview”.

It is confusing what does it mean “at the time of interview”? Please, clarify.

Methods, paragraph 9: “Primarily, athletes were regarded as physically active persons.”

What definition of athletes was used? It is a person who practices competitive sports? Based on what question were respondents classified as athletes?

"People who didn’t pursue any sports were asked about...” It is not clear what kind of sports authors ask about? It is a kind of competitive sports or recreational sports?

“How often did you do the following form of activity (running, swimming, gymnastics, using fitness machines, at least 20 minutes walking, bicycling and gardening) in the last year?”
Please explain, why time 20 minutes, concerns only walking, bicycling and gardening?

It is still questionable if the subjects remember their leisure time physical activity after year (especially if it was irregular).

Discussion, paragraph 15: As limitation of this study, I suggest adding, that validity of used measures of smoking status and physical inactivity in leisure time is unknown.

2. Minor Essential Revision

Results, the whole text: Please write: (ORHu=….., 95% CI:………).

Results, the whole text: Please use: leisure time physical activity if you write about this activity.

Results, paragraph 3: “In the univariate analysis the risk of obesity was influenced by smoking status and physical activity in Hungarians: obesity was less common among current smokers………..” “In Romanians, unhealthy diet (OR…….) increased the risk of obesity (Table 3).”

The results in Table 3 about the risks (not prevalence and not influence): I suggest to write something like that: In the univariate analysis conducted in Hungarians obese individuals compared to non obese were more likely to be non smokers and inactive in their leisure time (OR……). Romanian subjects who practice unhealthy diet were more likely to be obese than those with healthy diet (OR………..) (Table 3).

The authors must check the wording of the sentences throughout the manuscript, especially in the results and the discussion.

Discussion, paragraph 3: “The association between smoking and educational level was supported by several other studies (28-30)”. Please, explain if the directions of these associations were similar to the authors’ own study?

Discussion, paragraph 3-4: The discussion is incoherent in this part.

Discussion, paragraph 5: Association between the first and the second sentence is lacking.

Discussion, paragraph 6: "Johansson et al. reported that social status is correlated to indicators of healthy diet (e.g. fruit and vegetable consumption) in men and women aged 16-79 years: those having at least 13 years of education…….” Please, explain how Johansson et al. measured social status.

Discussion, paragraph 7-8: Please, explain if Haeule et al. and Pitsavos et al. studied the total physical activity or leisure time physical activity?

Discussion, paragraph 7, 8, 12: It seems necessary to add that comparison of the results from authors’ own study with the findings of previous study is limited because they use different measures of studied variables, especially measures
of smoking, leisure time physical activity and socioeconomic status.

Discussion, paragraph 10: Could the authors explain the different directions of associations between inactivity in leisure time and obesity in Romanian and Hungarian subjects?

Discussion, generally: Results of the present findings could be presented in the light of earlier study conducted among Hungarians and Romanians. Especially, information about inactivity in leisure time and its correlations in Hungarian and Romanian populations are lacking.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: I declare I have no competing interests.

**Quality of written English:** Acceptable