CORRESPONDENCE

Smoking and Chronic Back Pain: Analyses of the German Telephone Health Survey 2003

by Dr. rer. soc. Monique Zimmermann-Stenzel, Julia Mannuß,
PD Dr. phil. Sven Schneider, Prof. Dr. med. Marcus Schiltenswolf in volume 24/2008

Wrong in Two Respects

- 1.) In the results section, the author correctly reports the bivariate relationship between "smoking" and "back pain" and that this is restricted to women. Nevertheless, in the discussion section, she simply ignores this restriction to women. She then also writes that this correlation is maintained when confounding factors are controlled for. On the contrary, the presented data indicate that exactly the converse is true. Only a multivariate analysis finds a gender-independent association between back pain and daily smoking or stopping smoking. As the multivariate analysis fails to find any association with occasional smokers, the general statement at the start of the discussion is wrong in two respects. These imprecise formulations greatly oversimplify the results - assuming they are not a deliberate embellishment.
- 2.) It is also stated that the probability of suffering chronic back pain was multiplied after at least 16 years of smoking. This conclusion is unjustified in a cross-sectional study, as the famous question of the chicken and the egg can only be answered in longitudinal studies. Moreover, the duration of the back pain was not recorded.
- 3.) The author concedes that the validity of the questionnaire data on the state of psychological health is unclear. However, the problem is not that a questionnaire was used, but that psychological factors were recorded with two individual non-validated items. As an alternative, there are well validated (short) questionnaires to measure psychological factors. The most important would have been depressiveness (for example, with the HAD-D scale), as this has been shown to be associated with both back pain and smoking. DOI: 10.3238/arztebl.2008.0654a

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In Reply:

- To 1.) In my opinion, the bivariate results should be and were in fact regarded critically, as they do not include any control for third variables which might influence the risk of back pain. Indeed only the multivariate analyses provide information on factors, by controlling for additional variables. This is why the discussion of the results primarily concentrates on the multivariate results. Moreover, the generalization at the start of the discussion is not wrong and certainly not wrong in two respects, as there is generally a real association between smoking and back pain. Daily smokers and former smokers are more often affected than people who have never smoked and not all smokers are equally affected, as is explained in more detail in the following sentence and paragraph.
- To 2.) The cross-sectional design does not permit the conclusion that smoking disturbs physical function in such a way that there is a greater risk of back pain. There is no question about this, as is stated in the third section of the discussion. Nevertheless, the cross-sectional data demonstrate that, within the group of smokers, there is a significant association between the occurrence of back pain and the duration of smoking of more than 16 years, and this is the most significant correlation with back pain.
- To 3.) I agree that there was no problem in the use of a questionnaire or in the collection of data in a telephone interview. The problem was rather that the information on psychological health was not based on medical diagnoses. Moreover, the two items were based on two questions from the validated SF-36 questionnaire (<http://www.sf-36.org/tools/SF36.shtml>), an international, validated instrument for the measurement of physical and psychological health.

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Conflict of interest statement

The authors of both the letter and of the reply declare that there is no conflict of interest in the sense of the guidelines of the International Committee of Medical Journal Editors.