LEADING ARTICLE

Epidemiology deserves better questionnaires

Jørn Olsen on behalf of the IEA European Questionnaire Group*

Epidemiological findings are often based partly or completely on responses to questionnaires. Yet the attention given to questionnaire development is often inadequate, compared with the amount of time and resources devoted to study design, population selection and analysing data. Too often the valuable body of knowledge and experience coming from other sciences is ignored. Even when well-constructed questionnaires exist, they are not always used by other researchers since copies of past questionnaires may be difficult or even impossible to locate and obtain. Apparently, the standards for storing questionnaires as part of research documentation vary from country to country and are far from the standards set by 'good epidemiology practice'.

The development of standardized ways of asking questions on specific topics, that is, of developing standard questionnaires for selected exposures and outcomes, might usefully be advanced by establishing a clearing house, a committee or working group acceptable to the broader scientific community. The committee might commence by evaluating questionnaires for which substantial validation is already available, and continue by identifying exposures and outcomes for which valid measures need to be found.

The committee could consider the issues of cost, feasibility, and ethics and should be able to set up workshops or task forces to develop specific questionnaires of interest. The committee should furthermore set up an annotated questionnaire library, preferably on the Internet.

We believe the following arguments indicate that such work is essential:

1. The quality of data will be improved. Many questionnaires developed on an ad hoc basis contain errors; some of these errors can be detected in the validation process and subsequently corrected.

2. Comparability, which is a prerequisite for meta-analyses and essential when trying to corroborate existing results, will be enhanced. Comparable information is also needed when we analyse results from different populations or over time from the same population. Descriptive epidemiology of this type has made important contributions in many areas of epidemiology.

3. Duplication of effort will be reduced. Much of the time spent on developing questionnaires will be saved, improving the cost-effectiveness of epidemiological research.

4. The credibility of epidemiology as well as the quality and usefulness of information thus derived will be improved.

Epidemiologists need to take the development of research instruments and the validity of questionnaire data more seriously. We should demand higher standards from ourselves and our colleagues. The development of questionnaires will, however, only receive the attention it deserves if also editors, peer reviewers and funding agencies demand use of validated questionnaires when possible.

This important work has not been done by existing scientific societies, perhaps because they are too small and too divided. Due to limited resources, it is also unlikely that the work of assessing the potential need for standard questionnaires and of developing standard questionnaires could be organized and funded by the IEA alone. At present it is a task that should be supported by the WHO or the European Union (EU).

A full report from the IEA working group is available on IEA's homepage (http://www.dundee.ac.uk/IEA). The report includes references and underlines some of the elements which should be part of the standardization procedure.

Reference

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