

"You get what you ask for"—impact of the wording of questions on skin disease

Hand eczema is a skin disease that affects about 10% of the population of working age (1). It has noticeable consequences (eg, health care consumption, sick leave, change of work, and impairment of health-related quality of life) for both society and the individual (2). Furthermore, hand eczema is the most common occupational skin disease (2). The most frequent type of hand eczema is contact dermatitis caused by environmental factors like skin irritants or contact allergens. In public health surveys, it is thus important to include questions about skin disease, in particular hand eczema, to be able to study possible changes in occurrence. In this letter, we present our experience with a public health survey that produced remarkable results for a question on hand eczema and emphasize the importance of the wording of the question.

In Stockholm County, with about 1.8 million inhabitants, two different health surveys were performed using postal questionnaires. In an environmental health survey in 1997, questionnaires were sent to 15 000 people aged 19–80 years (3–4), and in a public health survey in 1998, 5000 questionnaires were mailed to randomly selected persons aged 20–84 years (5). The response rates were 73% and 64%, respectively.

In the environmental health survey, the wording of the question about hand eczema was "Have you had hand eczema on any occasion during the past 12 months?", and, in the public health survey, it was "Have you had any period of hand eczema or skin rash on any occasion during the past 12 months?" The intention was to use the same question. However, due to an unfortunate technical mishap, the wording of the question in the public health survey was not the same. "Yes" answers were obtained from 8% (males 6%, females 10%) of the respondents in the environmental health survey and from 31% (males 32%, females 26%) of the respondents in the public health survey.

The question used in the environmental health survey had been previously used in several Swedish studies, and the reported 1-year prevalence of hand eczema was in agreement with previous experience (1). A validation of the question has shown a sensitivity of 53–59% and a specificity of 96–99% (6).

It is impossible to know what the respondents included in the concept "rash" as used in the public health questionnaire. Probably several of the most common skin diseases besides hand eczema were also reported, diagnoses like psoriasis, urticaria, atopic dermatitis, seborrheic dermatitis, acne, rosacea, tinea, hypostatic

eczema, and some skin tumors. The occurrence of skin disease (all diagnoses) in the general population has been estimated to be about 30% (7), thus similar to the result for the question used in the public health survey.

This example illustrates that the exact wording of a question is of utmost importance if results are to be interpreted properly and consequently used for different purposes (eg, to follow trends and to estimate the effects from preventive strategies). For questions about occupational skin disease and exposure, a new questionnaire tool was recently developed (8). When a questionnaire is being designed, advice should be sought from persons with expert knowledge in the field on what the question is intended to cover; in the case of skin disease, the person should be a dermatologist experienced in epidemiology.

References

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