

## Abstract

23rd Biennial Conference of the Society for Multivariate Analysis in the Behavioural Sciences

### RELIABILITY OF THE ANSWERS FROM THE QUESTIONNAIRE'S STUDY - LIFE-STYLE AND SOCIO-ECONOMIC STATUS

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#### **Paper presentation**

##### Introduction:

The study of reliability was a part of the project funded by the Czech Ministry of Health – “Subjective approach of inhabitants of Ostrava to their health in association with their life-style, socio-economic status and education”.

##### Methods:

In the first phase random sampling of the population in Ostrava was undertaken for the questionnaire survey. Next a questionnaire was compiled and sent to 3,000 respondents. After collecting the questionnaires respondents were selected to be included in the repeatability study. From a total of 600 respondents who returned the completed questionnaire, 300 were chosen. The choice was made by the date of return of the completed questionnaire in the main study and then every other respondent was chosen. This method of choice was used purposely as it wanted to include equally both the respondents who returned the questionnaire immediately upon receipt and those who took their time completing and returning it. The 300 questionnaires which were absolutely the same as in the main questionnaire survey were then sent again. This repeatability study took place 6 weeks after the main questionnaire study. The total number of returned and completed questionnaires reached 181 (60.3% of the response rate).

The method of calculating the kappa index and calculating the whole percentage of accordance were used for the evaluation of the repeatability study. We evaluated 61 questions, which were divided into five sections (general questions, employment, life-style, health and personality).

##### Results:

The agreement rate varied from 46 % to 100 % and the value of the kappa index from – 0.01 to 1. The agreement performed by the kappa index was divided into 4 groups ( $\leq 0.4$  – poor; 0.41–0.6 – average; 0.61–0.80 – good; 0.81 – 1 almost perfect). The agreement across our questionnaire was poor in 6.6 % of the questions, average - in 31.1%, good – in 45.9% and almost perfect – in 16.4% of the questions. Next we divided the questions by their content into two groups – the factual questions (group 1) and the questions whose answers contain an evaluative or motivational element (group 2). Significant differences ( $p < 0.001$ ) were found between groups 1 and 2 in the agreement rate (86.8 %; 72.1%) and the kappa index (0.73; 0.48).

##### Conclusions:

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These important results are considered in the analysis of the data and in the interpretation of the study outcomes.

It was important to find out that we can rely on the factual questions posed (e.g. marital status, whether the respondents smoke, etc.). With this kind of questions people give true answers and do not tend to alter the information deliberately. The questions where the agreement is evaluated as average or even weak, it is important to work carefully and it is necessary to take into consideration a low stability of the questions.