HARMONIZATION OF DIETARY QUANTIFICATION METHODS: CAN QUANTIFICATION BY A COMMON BASED PICTURE BOOK COVER SPECIFIC NEEDS OF A COUNTRY?

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The Pilot study in the view of a Pan-European dietary survey – adolescents, adults and elderly (PILOT-PANEU) is being developed with the objective of harmonizing the collection of dietary data between countries. The collection of dietary information will be done by using the Epic-software and by the application of structured questionnaires. For the quantification of food intake, four methods can be used: food photographs, household measures, standard units or shapes. Regarding the quantification by photographs, for each country the original EPIC-soft Picture Book was adapted through the selection of the photos needed and the possible addition of new photos. The main purpose of this work is to access the ability of a picture book common to several countries to cover the traditional dishes and the specific portions consumed in a particular country. To answer this question we intend to analyze the case of Portugal, comparing the adapted EPIC-soft Picture Book with the two national picture books. Parameters as the number of photographic series, the food groups considered, the number of portions in each series, the portion weight, the application of a different methodology to estimate the same food item or the technical details of the photographs were considered. This study leads us to reflect about the susceptible situation of the harmonization process. If in one hand we have the generalization of concepts and methods, on the other hand the specificities of each country have to be considered. Aligning what is common with what is specific can be considered a starting point for harmonization of dietary quantification methods.

VALIDATION OF FOOD PHOTOGRAPHS USED TO ESTIMATE FOOD PORTION SIZE ACROSS PILOT-PANEU COUNTRIES

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The Pilot study in the view of a Pan-European dietary survey (PILOT-PANEU) aims to develop and test methods and procedures for the estimation of dietary risks and identification of dietary habits in nationally representative samples of adolescents, adults and elderly in Europe. Food photographs are used to help subjects estimating more accurately the amounts of food consumed. These aids are used widespread including in PILOT-PANEU countries since they are easily adaptable to local conditions, cheap, reproducible and transportable. Three psychological constructs affect individual portion-size reports: perception, conceptualization and memory. In this study, the perception will be the only dimension covered, which can be defined as the individual ability to estimate the size of a presented food portion by selecting one photograph from a set of photographs depicting different amounts of a particular food. In this validation study, a minimum of 21 adolescents (10-17 years) and 21 adults (18-74 years) were recruited from each PILOT-PANEU country (Bulgaria, Finland, Germany, Hungary, Poland and Portugal). Representative food photo series were chosen to cover a wide range of food groups, achieving approximately 25% of the PILOT-PANEU Picture Book. Various dishes and food items were prepared; the majority were identical to the food item depicted in the picture series and prepared using the same recipe as the food presented in the picture series. A minority (approximately 30%) of the food served did not have exactly the same weight as the one in the photo, to simulate a more real situation. For the statistical analysis a weighted kappa was used to access the pattern of agreement between the served and estimated portion size. The percentages of portion correctly identified, over-estimated and underestimated with the photographs were calculated for each subject and each food and the chi-square test was used to access statistically significant differences between the proportions. To investigate how served portions, age, gender and Body Mass Index explain the variability of estimated weight, a multiple regression analysis was performed. The results of this study will contribute to the development of a harmonized and validated picture book to be used during the PILOT-PANEU, as recommended by EFSA.