PREAMBLE

Consensus on the methodology of dietary surveys
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Since the beginning of the modern era, interest for food and nutrition population studies has increased both in Spain and worldwide.

Since the mid-twentieth century, several interesting studies in different population groups have been carried out, like those included in the book “Nutrition studies” by Carlos Jiménez Díaz (1941-1943), and those carried out during the Spanish Civil War and in the postwar period by Francisco Grande Covión, among others.

The first national survey, launched within the frame of the Universidad Complutense de Madrid (Complutense University of Madrid), was carried out in 1954 under the direction of Professor Gregorio Varela-Mosquera, with the collaboration of FAO.

In the 1960s, educational programs like EDALNU (Education in Food and Nutrition), addressed to women and families, were carried out with the technical support of UNICEF and FAO.

From the 80s decade onwards, knowledge of food habits in the Spanish population is deepened through the surveys by INE (National Institute of Statistics), although different autonomous regions conducted their own food and health studies.

Some of the most remarkable works that have been carried out during the last third of the 20th century are: PAIDOS, Enkid, PERSEO studies (linked to the NAOS strategy), the White Book of Nutrition in Spain, nutritional surveys like ENIDE, ALADINO, ENALIA I and ENALIA 2, as well as the reports by MERCASA and the Ministry of Agriculture, Food and Environment (MAGRAMA).

At present time, the ANIBES scientific study on the “Evaluation of the Energy Balance and Food Habits of the Spanish population” is in a position to generate interesting information about the determinant factors of excess body weight in Spain, high quality data on physical activity and sedentary lifestyle, and it will become an indispensable reference for the implementation of health promotion actions in the coming years.
Dispersion of approaches and methodology

Each of the nutritional studies that have been carried out so far has used different methods and approaches for data collection and different reference values. This situation of dispersion has encouraged the organization of an expert meeting to debate all the necessary points to be able to arrange future population nutrition studies with a validated, comparable and harmonized methodology.

Among the key elements, food intake evaluation, physical activity, body weight, as well as lifestyles and other related factors are included.

Undoubtedly, this will lead to a significant progress in the Nutrition and Public Health area, as well as the possibility of being part of comparative or collaborative studies both at a national and international level.

This is one of the main objectives of the “Consensus Document on the methodology of dietary surveys, classification of physical activity and healthy lifestyles”, the first Consensus Document in Spain that reviews the methodology of dietary surveys, the classification of physical activity and healthy lifestyles.

This document, carried out by 35 experts in nutrition, dietetics, physical activity, medicine, pharmacy, sports and health in general, has enabled to count on a review in depth of the current dietary guidelines and surveys, in order to develop nutritional, dietary and physical activity recommendations more appropriate for the current population and lifestyles.
20 consensus points

The experts agree in highlighting the role of the dietary and physical activity quality in order to prevent health problems such as overweight and obesity, within the new dietary and physical activity surveys models. Furthermore, they emphasize the need of unifying methodological and nutritional assessment criteria that enable to carry out comparative studies to complement the current knowledge, as well as the incorporation of new technologies for the development of more accurate and more adjusted to reality assessments. Moreover, they claim a greater study on physical activity and lifestyles as regards nutrition, and the need to improve the current energy expenditure quantification.

This consensus document is summarized in 20 main points, which should be taken into account when it comes to implementing population studies on nutrition, physical activity and lifestyles:

1. It is essential to know the objectives, as well as the available resources to be able to decide on which valid method or methods are best suited in every circumstance.

2. It is necessary to standardize the type of surveys used in order to improve the usefulness of data and to be comparable between them.

3. Until now, food waste has been mostly not considered.

4. All methods of dietary intake assessment have advantages and disadvantages, so the combination of the most appropriate according to the population, objectives and resources is recommended.

5. New technologies should help improve the participants’ collaboration in these studies and the accuracy of the estimations.
6. There are especially sensitive population groups, which need specific methodological approaches according to their characteristics.

7. Careful protocol design, selection and training of those responsible for the fieldwork, pilot studies and the use of agreed Food Composition Tables are strategic points in the process.

8. Energy expenditure data through physical activity and energy balance assessment should be included.

9. The assessment of physical activity and quantifying of sedentary lifestyle should be performed using the combination of instruments and self-assessment questionnaires that are considered most suitable according to objectives, population and resources, considering that it can raise certain inaccuracies and an overestimation of results.

10. Different categorizations of physical activity levels should be assessed depending on aspects such as gender, age, socioeconomic status and educational level.

11. In all studies there is an error rate that should be considered from the people that under-report or over-report on their food intake.

12. Social aspects including “when”, “where”, “what”, “how” and “with who” related to food and beverage consumption assessment should be considered.

13. It would be desirable to have validated scales of food insecurity assessment that allow the detection of difficulties that families might have to access a varied, sufficient and adequate diet.

14. The quantification of physical activity is related to more individual aspects, which makes evaluation more specific.
15. It is necessary to have **specific tools** for the assessment of nutritional status of specific populations.

16. **Screening instruments** may be useful to identify individuals or groups in risk of malnutrition.

17. Assessing the quality of the diet, nutritional status and different related biomarkers require selecting **reference values and standard evaluation criteria**.

18. For the measurement of anthropometric data, it is essential to consider the **body mass index, waist circumference and percentage body fat value**. The combination of the three data enables the accuracy of weight status classification.

19. Studies that comprehend anthropometric data, food intake, level of physical activity and other multidisciplinary factors can be **addressed globally** and can be of interest to different areas.

20. It is necessary to **promote periodically scientific meetings** with experts on topics of interest in the field of nutrition, physical activity and health.
References

Scientific Committee

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The final protocol of the ANIBES scientific study was previously approved by the Clinical Research Ethics Committee of the Community of Madrid (Spain).

ANIBES scientific study >> Anthropometric data, macronutrients and micronutrients intake, practice of physical activity, socioeconomic data and lifestyles of the population
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