The Readaptation of the Subscale 3 of the NLit-IT (Nutrition Literacy Assessment Instrument for Italian Subjects)

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Abstract : The design of the Nutrition Literacy Assessment Instrument (NLit) responds to the need to provide a tool to adequately assess the construct of nutrition literacy (NL), which is strictly connected to the quality of the diet and nutritional health status. The NLit was originally developed and validated in the US context, and it was recently validated for Italian people too (NLit-IT), involving a sample of N = 74 adults. The results of the cross-cultural adaptation of the tool confirmed its validity since it was established that the level of NL contributed to predicting the level of adherence to the Mediterranean Diet (convergent validity). Additionally, results obtained proved that Internal Consistency and reliability of the NLit-IT were good (Cronbach's alpha (ρT) = 0.78; 95% CI, 0.69–0.84; Intraclass Correlation Coefficient (ICC) = 0.68, 95% CI, 0.46–0.85). However, the Subscale 3 of the NLit-IT "Household Food Measurement" showed lower values of ρT and ICC (ρT = 0.27; 95% CI, 0.1–0.55; ICC = 0.19, 95% CI, 0.01–0.63) than the entire instrument. Subscale 3 includes nine items which are constituted by written questions and the corresponding pictures of the meals. In particular, items 2, 3, and 8 of Subscale 3 had the lowest level of correct answers. The purpose of the present study was to identify the factors that influenced the Internal Consistency and reliability of Subscale 3 of NLit-IT using the methodology of a focus group. A panel of seven experts was formed, involving professionals in the field of public health nutrition, dietetics, and health promotion and all of them were trained on the concepts of nutrition literacy and food appearance. A member of the group drove the discussion, which was oriented in the identification of the reasons for the low levels of reliability and Internal Consistency. The members of the group discussed the level of comprehension of the items and how they could be readapted. From the discussion, it emerges that the written questions were clear and easy to understand, but it was observed that the representations of the meal needed to be improved. Firstly, it has been decided to introduce a fork or a spoon as a reference dimension to better understand the dimension of the food portion (items 1, 4 and 8). Additionally, the flat plate of items 3 and 5 should be substituted with a soup plate because, in the Italian national context, it is common to eat pasta or rice on this kind of plate. Secondly, specific measures should be considered for some kind of foods such as the brick of yogurt instead of a cup of yogurt (items 1 and 4). Lastly, it has been decided to redo the photos of the meals basing on professional photographic techniques. In conclusion, we noted that the graphical representation of the items strictly influenced the level of participants' comprehension of the questions; moreover, the research group agreed that the level of knowledge about nutrition and food portion size is low in the general population.
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