Abstract

Knowledge is a significant component of several behavioral theories used in nutrition, including the health belief and stages of change models. In Uganda, the evaluation of nutrition interventions is limited by the lack of validated tools, especially of nutrition knowledge. The objective in this study was to develop and validate the General Nutrition Knowledge Questionnaire (GNKQ) for adults in Uganda.

Method

The GNKQ comprised of five dimensions of nutrition knowledge, sources of nutrition knowledge, and demographic characteristics. Components of the GNKQ

1. Dietary guidelines
2. Food groups
3. Food choices
4. Nutrition and disease relationship
5. Sources of nutrition information
6. Demographic characteristics

The GNKQ was created to assess declarative knowledge. It was used in two surveys with head teachers in Mukono and Wakiso in a two week interval. The dimension of “recommendations” lost all items after applying the criteria used above (Table 2 and 3).

Results: Item Discrimination, Internal Consistency and Test-Retest Reliability

For each item, correct answers were given a score of one and incorrect answers a score of zero.

Based on the item difficulty index (IDI), all of 24 items were identified as either very easy (IDI ≥ 0.10) or difficult (IDI ≤ 0.10).

We generated the item to total correlation scores to determine the ability to discriminate between low and high performers in the GNKQ. Sixty items were observed with low item to total correlation (< 0.2).

Results: Concurrent validity

The GNCQ had acceptable internal consistency and test-retest reliability among the selected population in Kampala district. It is known that these measures are sample specific, and thus, requires further confirmation.

The student sub-population used to establish construct validity may not represent the target population of head teachers. Construct validity can be determined among teachers and health workers by evaluating change in nutrition knowledge after a nutrition education intervention.

Impoantly, this study revealed the items in the “recommendations” dimension did not have adequate reliability. This points to lack of consistent messages in the communities.

The GNCQ was created to assess declarative knowledge.

Future studies will use the validated GNCQ to determine whether nutrition knowledge promotes health behaviors among head teachers.

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