

# Content Validity of Self-Report Measurement Instruments: An Illustration From the Development of the Brain Tumor Module of the M.D. Anderson Symptom Inventory

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**Purpose/Objectives:** To illustrate one technique for establishing content validity of measurements using the initial development and testing of the M.D. Anderson Symptom Inventory Brain Tumor Module.

**Data Sources:** Published articles, book chapters, and subjective judgments of experts.

**Data Synthesis:** Content validity is the essential first step in the development of items to be included in a measurement instrument. Content validity is a criterion-referenced process that is judged by how well each item in a newly developed instrument reflects its respective objective or content domain. The stages in addressing content validity include a developmental stage and a judgment-quantification stage. Steps involved in the developmental stage include domain identification, item generation, and instrument formation. The judgment-quantification stage is when experts review the items and either report validity of the items subjectively or with an empirically referenced method, such as calculation of the content validity index. The content validity of a set of questions designed to measure symptoms in a population of patients with primary brain tumors was ascertained by using the calculation of the content validity index.

**Conclusions:** The final version of the M.D. Anderson Symptom Inventory Brain Tumor Module consists of the 13 core items and 18 additional items designated as valid by a panel of experts. The instrument will be administered to a group of patients to determine construct validity and reliability of the items.

**Implications for Nursing:** Self-report instruments are used to measure various health outcomes in oncology. Oncology nurses are in a key position to develop such instruments to be used in clinical care and research of symptoms associated with cancer. Understanding the process of content validation is an essential first step in developing new instruments.

Self-report instruments commonly are used in research about and care of patients with cancer to collect health-related information. This information may relate to adverse events, disease- or treatment-related symptoms, psychological status, satisfaction with care, and health outcomes. Assessing content validity is considered one of the most critical first steps in instrument development (Beck & Gable, 2001). Content validity concerns how well the questions or items correspond to the concept being measured (Saw & Ng, 2001) or adequately represent the domain of content (Beck & Gable).

## Key Points . . .

- Content validity refers to how well questions or items in a tool represent the concept of interest.
- Steps in developing a content-valid measurement include a developmental stage and a judgment-quantification stage.
- Several methods are available to identify the domains of interest and validate items once selected.
- Careful selection of experts to review items for content validity is imperative to ensure accuracy of the process.

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This article will review approaches to selecting valid items for inclusion in an instrument and provide an example of the

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