Original Article

Validation and Application of the Arabic Version of the M. D. Anderson Symptom Inventory in Moroccan Patients With Cancer

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Abstract

Context. Little is known about symptom burden—a concept encompassing both symptom severity and the degree of symptom interference with daily living—in patients with cancer in Morocco or other countries with Arabic-speaking populations.

Objectives. The goal of this study was to psychometrically validate the Arabic version of the M. D. Anderson Symptom Inventory (MDASI-A), a tool for measuring multiple symptoms in patients with cancer, and to test its utility in a sample of patients with late-stage cancer in Morocco.

Methods. The MDASI-A was developed by standard forward-backward translation of the English MDASI. We used nonidiomatic Arabic in the MDASI-A to enhance its possible usefulness for all Arabic-speaking patients with cancer. One hundred sixty-five Arabic-speaking patients with various cancer types were recruited from a city hospital in Rabat, Morocco. The MDASI-A was administered by interview, as only 5% of the patients had a high school education.

Results. Psychometric analysis demonstrated acceptable internal consistency, with Cronbach alpha values of 0.85 for all 19 items, 0.78 for symptom severity items, and 0.79 for interference items; known-group validity was demonstrated by significant differences in mean symptom severity and interference between patients with good vs. poor performance status. All patients had moderate to severe pain and were taking pain medications. Additional severe symptoms included fatigue, lack of appetite, and disturbed sleep. Patients with gastrointestinal or gynecological cancer reported relatively more symptom severity than patients with breast or lung cancer. Poor performance status, male gender,

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and current infection were significant predictors of high symptom interference ($R^2 = 0.48$, $P < 0.05$).

Conclusion. The MDASI-A is a valid and reliable patient-reported outcome instrument that can be used to assess Moroccan Arabic-speaking cancer patients' multiple symptoms. Its utility for use in other Arab countries needs to be tested. J Pain Symptom Manage 2010;40:75–86.

Key Words
MDASI, symptom assessment, Arabic, validation, cancer, pain

Introduction

Patients with cancer suffer from a variety of symptoms caused by their disease or related treatment, especially when the cancer is in an advanced stage. To assess and manage these diverse symptoms, clinicians who provide oncology care need valid and reliable symptom-report measures. Although Arabic-language tools measuring the broad concept of health-related quality of life have been validated in Arabic-speaking patients,[1–5] a search of the medical literature in Medline, Scopus, and the Institut National de l'Information Scientifique et Technique in France failed to retrieve any validated Arabic translations of established tools for measuring cancer-related symptom burden, a more focused concept that encompasses both the severity of symptoms and the patient's perception of the impact of the symptoms as the patient self-report closest to the biological processes of disease and the interactions between disease and treatment.[6] As a result, little is known about symptom burden in patients with cancer in Morocco or other countries with Arabic-speaking populations.

The M. D. Anderson Symptom Inventory (MDASI), developed by Cleeland et al.,[7] is a reliable, validated patient-reported outcome measure that can be used to assess symptom burden in patients with cancer. This comprehensive instrument assesses the most prevalent and common cancer-related symptoms, along with symptoms' interference with daily life. It is easy to administer, is accessible to individuals with a low education level, and can easily be translated into other languages. Existing validated foreign-language versions include Japanese,[8] Chinese,[9] Filipino,[10] Greek,[11] Korean,[12] Russian,[13] and Taiwanese[14] translations. In a systematic review of 21 validated symptom assessment instruments,[15] the MDASI was judged to be the most appropriate in terms of flexibility, reliability and validity, ease of completion, and utility in symptom management.

The purpose of this investigation was to create and validate an Arabic version of the MDASI (MDASI-A). We conducted the study among cancer patients receiving palliative care at the Institut National d'Oncologie, Rabat, Morocco, examining the psychometric properties of the MDASI-A and the prevalence and patterns of cancer-related symptoms in these Arabic-speaking patients. Our goal in creating the MDASI-A was to provide an instrument that will be useful in all Arab countries of the North African and Middle-Eastern regions as well as in immigrant Arab populations worldwide.

Methods

Subjects

We recruited patients being treated for cancer in the Department of Anesthesiology, Institut National d'Oncologie, Rabat, Morocco. Eligible patients had a diagnosis of cancer, were experiencing cancer pain and receiving pain medication, were at least 18 years old, and spoke Arabic. Patients were excluded if they were too ill or too cognitively impaired to respond to the questionnaire, as judged by the research staff. Most of the patients were receiving government-supported health care.

The proposed study was approved by the General Secretary of the Ministry of Health in Morocco and the Institutional Review Board of The University of Texas MD Anderson Cancer Center in Houston, Texas. Participants