

# The Cachexia Assessment Scale: Development and Psychometric Properties

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**C**achexia is defined as a syndrome characterized by the nondeliberate loss of more than 5% of body weight in the prior six months. Symptoms of cachexia include a decline in the amount of fat and muscle tissue, early satiety, loss of appetite, nausea, vomiting, dysphasia, and weight loss. A high frequency of cachexia has been found among patients with lung and head and neck tumors (Palesty & Dudrick, 2003). This syndrome is associated with several negative outcomes, including depression, poor survival, and lower quality of life (Brant, 1998; Costelli & Baccino, 2000; Dell, 2002; Inui, 2002).

Drastic weight loss is sometimes the first sign of disease. Some researchers have characterized weight loss and, therefore, cachexia as being directly responsible for the death of 30% of patients with cancer (Palesty & Dudrick, 2003). Nutritional disorders, in general, also have been shown to increase the morbidity of hospitalized patients (de Luis et al., 2006).

Cachexia normally is associated with patients at the terminal stage of disease and at the end of life (Bruera & Sweeney, 2000); however, since the late 1990s, an increased understanding about the development of cachexia has occurred. Cachexia has been found to be inseparable from the curative as well as palliative stages of treatment and care. In fact, it has been shown that the negative effects of weight loss can be treated with augmented nutrition combined with medication. Bruera and Sweeney (2000) found that patients with upper gastrointestinal cancer or intestinal obstruction who received high nutrition or oral supplements survived longer and had a better quality of life compared to patients who did not receive added nutrition. Therefore, the early identification of patients at risk for cachexia, particularly during the early stages of disease, can be an important treatment approach, leading to improved quality of life, outcomes, and even survival. According to Ottery, Bender, and Kasenic (2002), building a multidisciplinary, interventional, nutrition program at the time of diagnosis is imperative.

Although the literature stresses the need to assess cachexia, several authors have commented that no one

**Purpose/Objectives:** To develop a tool to identify patients with cancer who suffer from cachexia throughout all stages of the disease.

**Design:** Tool development study.

**Setting:** Oncology day care, follow-up clinics, radiotherapy, and hospice home care.

**Sample:** 90 patients with cancer (25 men and 65 women).

**Methods:** The Cachexia Assessment Scale (CAS) was created based on a thorough review of the literature and was tested for its psychometric properties.

**Main Research Variables:** Presence of cachexia.

**Findings:** Measures of reliability were determined by inter-rater, test-retest, and internal consistency reliability. Measures of validity were content validity, criterion validity, sensitivity, and specificity.

**Conclusions:** The CAS possesses adequate levels of reliability and validity and can be used to evaluate cachexia at all stages of cancer.

**Implications for Nursing:** The CAS can be used as an assessment tool for cachexia in various treatment settings.

tool exists that adequately measures cachexia among patients with cancer and no tool has been accepted as the gold standard (McCall & Cotton, 2001; Slaviero, Read, Clarke, & Rivory, 2003). The purpose of this study was to develop and test a new tool, the Cachexia Assessment Scale (CAS), to measure and assess cachexia among patients at all stages of cancer, including those in the early phases.

## Methods

### Sample

A convenience sample of patients with cancer in the community was recruited to participate in the study. Inclusion criteria were patients older than age 18 years who did not have a hematologic form of cancer and were not currently hospitalized. Sources of recruitment were a cancer follow-up clinic, oncology daycare clinic, radiotherapy clinic, and oncology homecare patients.