

# Comparison of Legacy Fatigue Measures With the PROMIS Pediatric Fatigue Short Form

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**OBJECTIVES:** To compare Patient-Reported Outcomes Measurement Information System (PROMIS) Pediatric Fatigue Short Form measures and legacy patient-reported outcome fatigue measures to capture cancer-related fatigue change in pediatric patients with cancer.

**SAMPLE & SETTING:** 96 racially diverse children and adolescents with cancer. The study occurred in a 32-bed inpatient unit and three regional outpatient clinics.

**METHODS & VARIABLES:** The Fatigue Scale–Child, Fatigue Scale–Adolescent, and the PROMIS Pediatric Fatigue Short Form measures were administered at three time points during chemotherapy. Descriptive, correlational, psychometric, and receiver operating characteristic (ROC) curve analyses were conducted. The variable was pediatric patient-reported fatigue.

**RESULTS:** All measures were positively correlated at each time point. ROC curves were not statistically different from each other at any data point.

**IMPLICATIONS FOR NURSING:** Nurses have psychometrically strong options for measuring cancer-related fatigue in pediatric patients with cancer, but the PROMIS Pediatric Fatigue Short Form is applicable to more age groups.

**KEYWORDS** pediatric oncology; PROMIS; fatigue; patient-reported outcomes

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Children, adolescents, and their parents, as well as adult survivors of childhood cancer, report cancer-related fatigue (CRF) to be a prevalent, intense, and distressing symptom that has a significant adverse effect on their health-related quality of life during cure-directed therapy, end-of-life care, and survivorship (Hsiao et al., 2017; Kestler & LoBiondo-Wood, 2012; Rach et al., 2017; Tomlinson et al., 2016; Wolfe et al., 2015; Zhukovsky et al., 2015). Although CRF can vary by age, gender, type of cancer treatment, and point in treatment (Dobrozsi, Yan, Hoffmann, & Panepinto, 2017; Hinds, Hockenberry, Tong, et al., 2007; Sanford et al., 2008; Tomlinson et al., 2013; Vallance et al., 2010), it is a near universal and troubling symptom often associated with worse mood, pain, distress, and disrupted sleep (Hinds, Hockenberry, Gattuso, et al., 2007; Rach et al., 2017; Sanford et al., 2008).

Although no standardized treatment for CRF exists, it is often amenable to interventions, such as yoga, music, walking, other forms of activity, rest, and distraction (Baumann, Bloch, & Beulertz, 2013; Danhauer, Addington, Sohl, Chaoul, & Cohen, 2017; Lopes-Júnior et al., 2016; Tomlinson et al., 2016). Because of the prevalence and disruptiveness of CRF in children and adolescents and their responsiveness to certain interventions, being able to accurately and sensitively measure CRF by patient report is essential to identifying those who are at highest risk and to determine the interventions that will most relieve them of this unpleasant symptom.

## Measuring Cancer-Related Fatigue in Children and Adolescents

Symptoms like CRF have been assessed in pediatrics with commonly used metrics referred to as legacy measures. Often, legacy measures focus on assessment of a specific symptom in the context of a specific disease, such as cancer. Pediatric legacy measures also tend to be created for a specific developmental