Your Best Resource in the Fight Against Cancer®

NCCN

National
Comprehensive
Cancer
Network®

2014 NCCN Annual Conference General Poster Session
March 13, 2014
Hollywood, FL

Authors: Joanne Buzaglo, Melissa F. Miller, Christopher Gayer, Anne Morris, Vicki Kennedy, Mitch Golant
Institution: Cancer Support Community Research and Training Institute
Topic Area: Cancer Survivorship

Title: CancerSupportSource (CSS): Validating a 13-item web-based distress screening tool in the community

Background: The Institute of Medicine (IOM), NCCN, and the American College of Surgeons have recognized that screening for psychosocial concerns is critical to ensuring quality cancer care for the whole patient. Few tools have been validated in the community where up to 85% of cancer patients are treated. CSS is a 25-item web-based tool (CSS-25) designed to screen patients for distress and connect them to appropriate resources. CSS-25 asks patients to rate their concerns (0 not at all to 4 very seriously concerned) and indicate whether they want to: 1) talk with a healthcare team member; 2) receive print information; or 3) online resources. The purpose of this study was to test the psychometric properties of a shorter 13-item version (CSS-13) including a 4-item depression subscale, among a community-based sample of cancer survivors.

Methods: A convenience sample of 251 English-speaking cancer survivors was recruited across 10 affiliates of a cancer support organization. Participants (90% female, median age 57) completed a web-based survey including CSS-25, the Functional Assessment of Cancer Therapy – General well-being scale (FACT-G), the Center for Epidemiologic Studies Depression Scale (CES-D), and the Distress Thermometer (DT). The first 100 respondents completed CSS-25 a second time to measure test-retest reliability.

Results: CSS-13 demonstrated high internal reliability (Cronbach's alpha=0.91). Test-retest reliability was strong (ICC≥0.75) for 9 of the items and moderate for 4 (0.65≤ICC<0.75). The median distress score (sum of 13 item ratings) was 14 and correlated well with the FACT-G (R^2=0.50, p<0.001), CES-D (R^2=0.52, p<0.001) and DT (R^2=0.40, p<0.001) indicating moderate to strong concurrent validity. The correlation with "gold standard" measures was stronger for CSS-13 than for CSS-25. In ROC analysis, a score ≥14 on the CSS-13 had a true positive rate (sensitivity) of 95% and false positive rate (specificity) of 9% compared to a score ≥25 on the CSS-25. In other words, 118 of the 124 (95%) who indicated risk of distress on the CSS-25 would also be classified as at risk on the CSS-13. For the 4-item depression subscale (sad, lonely, nervous, fatigue; alpha=0.83), the sensitivity and specificity for depression (CES-D≥21; AUC=0.92) was 97.5% and 72.2%, respectively, if the depression score (sum of 4 problem ratings) was ≥5. The 13-item scale was able to discriminate groups of clinical relevance (active treatment, time since diagnosis). The distress score was not different by stage of cancer at diagnosis.

Conclusions: CSS-13 shows strong psychometric properties that can help screen for patients at high risk for distress and depression. Addressing the needs of these patients through appropriate screening, referral, and follow-up can lead to better patient-reported outcomes.