CancerSupportSource: Validating a 25-item Spanish web-based distress screening tool in the community

CANCER SUPPORT COMMUNITY — A Global Network of Education and Hope

CANCER SUPPORT SOURCE — A COMPLETE DISTRESS SCREENING PROGRAM

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Introduction

- The Cancer Support Community (CSC) represents a global network of nonprofit community-based organizations that provide professionally led support and education to cancer patients and their families.
- The Institute of Medicine (IOM), NCCN and the American College of Surgeons have recognized that screening for psychosocial distress is critical to ensuring quality cancer care for the whole patient.
- Few validated tools are available for screening Spanish speakers for cancer related distress.
- *CancerSupportSource[SM] (CSS)* is an evidence-based (Miller et al., 2012; Buzaglo et al., 2013; Gayer et al., 2013), web-based distress screening program.
- CSS was translated into Spanish by *Einstein-Montefiore Institute for Clinical & Translational Research* to create CSS-Spanish (CSS-Sp).
- A 15 (CSS-Sp-15) item version of CSS-Spanish has previously been validated in the community setting (Gayer et al., 2014).
- The purpose of this study was to validate and test the psychometric properties of the 25-item version of CSS-Spanish, including a 4-item depression subscale, among a community-based sample of Spanish-speaking cancer survivors.

Key Features of CancerSupportSource (CSS):

- CSS was developed based on the seven key areas of psychosocial need identified by the Institute of Medicine (2008).
- CSS can be completed at home or in the clinic using a computer or touch screen tablet.
- CSS asks the patient to rate 15 concerns and indicate the type of help (print information, online or talk with a staff member) they desire for each concern.
- CSS integrates a valid and reliable self-report measure with automated reports and linkages to vital information and referral for support services (Buzaglo et al., 2013).
- Two summary reports are produced based on the patient's responses to CSS:
  - The *patient summary report* is automatically generated and provides patients with referrals for in-house, online and community support services and resource fact sheets.
  - The *clinician summary report* includes a summary of the patient's results, red flags and actionable clinical alerts and is sent directly to the health care team and incorporated into the electronic medical record.
- CSS takes less than 10 minutes (on average) for a patient to complete.
- To date, over 1,000 cancer patients have completed the distress screening program.

Sample Characteristics *(N=182)*

Convenience sample of 182 Spanish-speaking cancer survivors from 6 CSC affiliate sites nationwide including:

- Chicago, IL
- Miami, FL
- New York, NY
- Pasadena, CA
- Quad Cities, IA
- Valley, Ventura, and Santa Barbara, CA

Characteristic	Proportion
Race	
Caucasian	64.4%
Sex	
Female	91.0%
Education	
Less than high school	22.5%
High school or GED	29.7%
Some college or vocational school	20.9%
College degree and above	20.3%
Employment Status	
Employed at least part time	36.0%
Not employed, but looking	15.7%
Disability	10.5%
	Median
Age (20-90 years)	54

Results

Figure 1. Top five rated concerns in CSS-Sp-25

(Legend: Somewhat to very seriously concerned; Seriously or very seriously concerned)
(Categories: Eating and nutrition; Health insurance or money worries; Exercising and being physically active; Feeling sad or depressed; Worrying about family, children and/or friends)
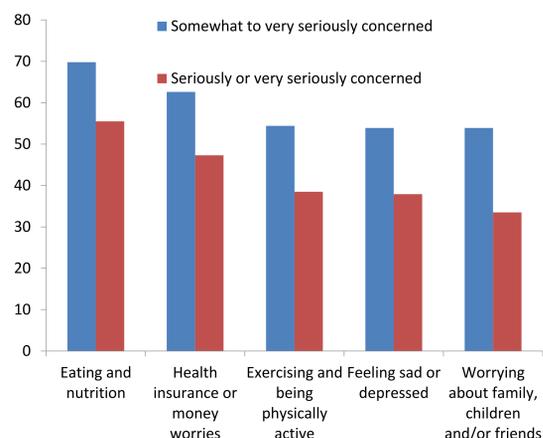
Table 2. Correlation (R^2) between CSS-Sp-25, CSS-Sp-15 and the FACT-G, CES-D, and DT in cancer survivors

	FACT-G	CES-D	DT
Summary Scores			
CSS-Sp-25 sum of problem ratings	0.32	0.46	0.22
CSS-Sp-15 sum of problem ratings	0.35	0.46	0.24
Depression subscale (sad, nervous, lonely, fatigue)	0.37	0.50	0.22

Note: Exact wording of items in depression subscale was as follows: 1. feeling sad or depressed; 2. feeling nervous or afraid; 3. feeling lonely or isolated; 4. feeling too tired to do the things you need or want to do

Summary of Results

- The five most common concerns (somewhat to very seriously) were eating and nutrition (70%), health insurance or money worries (63%), exercising and being physically active (54%), feeling sad or depressed (54%), and worry about family, children and/or friends (54%).
- CSS-Sp-25 demonstrated high internal reliability (Cronbach's alpha=0.95).
- The total distress score (sum of item scores, range 0-100) correlated well with several gold standard measures indicating moderate concurrent validity:
  - *Functional Assessment of Cancer Therapy – General (FACT-G)* well-being scale (R^2=0.33, p<0.001)
  - *Center for Epidemiologic Studies Depression Scale (CES-D)* (R^2=0.46, p<0.001)
  - *Distress Thermometer (DT)* (R^2=0.22, p<0.001)
- A 4-item depression subscale demonstrated strong correlation with the CES-D (R^2=0.50, p<0.001).
- In non-parametric analysis of variance, several group comparisons supported known-group validity, e.g., CSS summary scores were significantly higher among stage IV survivors.

Methods

- Spanish-speaking cancer survivors completed a paper-and-pen survey including CSS-Sp-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).
- Internal reliability was estimated using Cronbach's alpha coefficient.
- Concurrent validity was determined by correlations with the FACT-G, CES-D and DT.
- A non-parametric analysis of variance was used to establish discriminant validity.

Conclusion and Future Directions

- CSS-Sp-25 showed moderate to strong psychometric properties and can be a valuable instrument to screen for psychosocial distress in Spanish-speaking populations.
- These results have important implications for the delivery of screening and psychosocial referral for underserved populations.
- Future research will test the implementation of CSS-Sp-25 for cultural sensitivity in diverse Spanish-speaking communities.
- Results may be helpful for determining areas in which program and intervention development are particularly needed for Spanish-speaking cancer survivors.

To access previously published and presented research related to CancerSupportSource please visit our website:
http://www.cancersupportcommunity.org/MainMenu/ResearchTraining/Posters-and-Presentations-2.html