

Validation of a Problem-Based Biopsychosocial Screening Instrument for Use in the Community

Melissa F. Miller¹, Joanne S. Buzaglo¹, Kasey Dougherty¹, Victoria Kennedy¹, Julie Taylor¹, Karen Clark², Matthew Loscalzo², Mitch Golant¹

Affiliations: ¹Cancer Support Community (CSC); ²City of Hope (COH), Department of Supportive Care Medicine, Duarte, CA

Cancer Support Community

Introduction

- The medical community has recognized that distress screening is a critical factor in quality cancer care. The Institute of Medicine (2007) recommends psychosocial screening for all cancer patients to improve integration of care. In the United States, up to 85% of patients are treated in the community rather than comprehensive cancer centers.
- However, distress screening for patients in the community is largely non-existent. To bridge this gap, the Cancer Support Community (CSC) is testing the feasibility and effectiveness of community-based comprehensive screening for cancer patients.

Forming a Partnership



- The Cancer Support Community provides the highest quality emotional and social support through a network of nearly 50 local affiliates, more than 100 satellite locations and online.
- After 18 years of screening experience in hospital settings, City of Hope (COH), a NCI-designated Comprehensive Cancer Center, developed an automated touch-screen screening service for patients called *SupportScreen™*.
- Investigators from CSC and COH collaborated in order to create a validated screening tool that will ensure that all cancer patients have access to community-based psychosocial care through the utilization of screening through a community-based Demonstration Project.

Community Initiated Research Collaboration Model (CIRC)

- CIRC connects researchers with community members to enhance knowledge and integrate sustainable evidence-based programming into the community
 - Power is equal
 - Questions guided by needs of community
 - Mutual respect towards achieving research goals

Objectives/Purpose

- Using the CIRC model, the first phase of the Demonstration Project is (1) to adapt the existing *SupportScreen™* 53-item problem-related distress screening tool for the community context by reducing the number of questions and revising items as appropriate (results presented here) and (2) to test the psychometric properties of the shortened 36-item tool.

Methods

- 350 participants completed pen-and-paper version of the 53-item *SupportScreen™*
- 10 sites nationwide: 5 Wellness Communities, 3 Gilda's Clubs, CSC Colorado, and Exempla St. Joseph Hospital
- Participants had to be:
 - English-speaking, 18 years+ of age
 - Cancer outpatients in treatment or follow-up
- Survey included:
 - 53-item *SupportScreen™*
 - Center for Epidemiologic Studies Depression Scale
 - Patient Health Questionnaire-2 (PHQ-2)
 - Functional Assessment of Chronic Illness Therapy-Sp
 - Demographic and biomedical questions

Theoretical Framework Guiding Validation

- We used the following criteria to determine the validity of each of the 53 items included in *SupportScreen™*

Statistical Criteria

- Does the item demonstrate:
 - Low endorsement for level of distress and/or request for assistance?
 - High correlation with other items (using Pearson correlation and factor loadings)?
 - Little contribution to unique variance in overall distress (using factor loadings)?

Theoretical Criteria

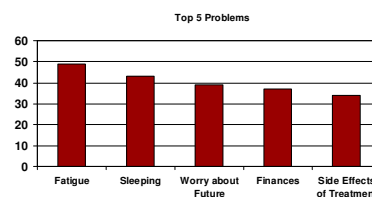
- Is the item:
 - Relevant to the patient at this time?
 - A problem or symptom that can be influenced?
 - Useful to maximize the benefit of the clinical encounter or ongoing medical care?
 - An essential element of the psychosocial program?

Sample Characteristics (n=350)

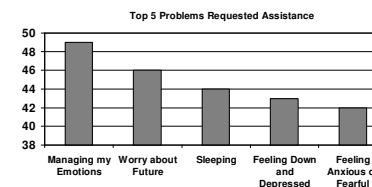
Mean Age: 60	Income:
79% Female	37% < 40K
Ethnicity:	32% 40-100K
77% Caucasian	15% > 100K
12% African-American/Black	69% Active treatment within past 2yrs
5% Hispanic/Latino	Cancer Type:
2% Asian/Pacific Islander	42% Breast
Education:	8% Gynecologic
2% <High School	8% Blood
14% HS Grad/GED	7% Colorectal
28% Some College	6% Lung
31% College Degree	4% Prostate
24% Advanced Degree	4% Head and neck

Results

- Based on % of participants who marked ≥ 3 for a problem out of a 5-point scale (1=Not at All; 5=Very Severe), the top 5 distress-related problems were:



- The 5 most common problems for which participants requested assistance were:



- Six items comprised a depression scale which correlated strongly with the CES-D score for depression ($r^2=0.52$, $p<0.001$, $n=343$) and the PHQ-2 ($r^2=0.41$, $p<0.001$, $n=332$)

Results, cont.

- The single item "finding meaning or purpose in life" correlated strongly with spirituality as measured using the FACIT-Sp ($r^2=0.30$, $p<0.001$) and with the meaning subscale ($r^2=0.40$, $p<0.001$).
 - "Spiritual or religious concerns" did not correlate as highly with spirituality ($r^2=0.09$)
- Refined *SupportScreen™* 53-item measure to a total of 36-items using statistical and theoretical criteria to meet community needs (deleted 19 items, revised six, added two)
- Item candidates for removal or revision included:
 - Items in a particular factor that were weaker, i.e. lower factor loading, than other items
 - Items that were included in multiple factors (individual factor loadings >0.4 and the difference between loadings >0.2), i.e. factors that are anomalous and did not perform well (do not contribute enough unique variance)
- First step in creating a reliable and standardized method of assessing psychosocial distress across a large network of community-based care providers

Future Directions

- The feasibility and validity of the 36-item community screening measure will be evaluated in the next phase of CSC's Screening Demonstration project.
- The aims of this project are to:
 - Screen 100% of new patients for distress
 - Make appropriate referrals in the community
 - Provide follow-up care
- Screening will take place at:
 - Genesis Cancer Care Institute in partnership with Gilda's Club Quad Cities, Quad Cities, IA
 - Exempla St. Joseph's Hospital in partnership with CSC Colorado, Denver, CO
 - CSC Florida Suncoast, Sarasota, FL

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Objective: To adapt and validate an existing problem-related distress screening tool for cancer survivors that can be disseminated into diverse community settings. **Methods:** A 53-item screening tool developed at the City of Hope Comprehensive Cancer Center was administered to 350 participants with mixed cancer diagnoses at ten sites nationwide. The survey included the Center for Epidemiologic Studies Depression Scale (CES-D), the Patient Health Questionnaire-2 (PHQ-2), and the Functional Assessment of Chronic Illness Therapy – Spirituality expanded scale (FACIT-Sp).

Results: Based on the percentage of people who marked ≥ 3 (moderate, severe, or very severe) for a problem, the five most common causes of distress were fatigue (49%), sleeping (43%), worry about the future (39%), finances (37%), and side-effects of treatments (34%). The five most common problems for which participants requested assistance, either written or to talk with a team member, were managing my emotions (49%), worry about the future (46%), sleeping (44%), feeling down or depressed (43%), and feeling anxious or fearful (42%). Using statistical and theoretical criteria, 19 items were dropped from the screening tool, 6 items revised and 2 items added comprising a 36-item community version. Using results from factor analysis, 6 items comprised a depression scale which correlated strongly with the CES-D score for depression ($R=0.72$, $p<0.001$, $n=343$) and the PHQ-2 ($R=0.64$, $p<0.001$, $n=332$). The single item “finding meaning or purpose in life” correlated strongly with spirituality as measured using the FACIT-Sp ($r=0.55$, $p<0.001$) and with the meaning subscale ($r=0.63$, $p<0.001$). Surprisingly, “spiritual or religious concerns” did not correlate as highly with spirituality ($r=0.30$).

Conclusions: Next steps are to further validate the 36-item community version of the screening tool and implement and disseminate the screening program across a diverse community network.

Learning Objective #1: To understand the process of adapting a screening measure for the community.

Learning Objective #2: To learn about components of a screening program for cancer survivors in the community.

Track: Translation of Research to Practice

Content Area: Cancer

Keywords: screening, community intervention