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Building Bridges, Breaking Down Barriers

An embedded psycho-oncology program improves patient-centered care

One in ten individuals has someone in his or her family dealing with cancer.[1] In addition, it is projected that 40 percent of the United States population will receive a cancer diagnosis at some point in their lifetime.[1,2] After a cancer diagnosis, patients and families struggle to adapt to "a new normal" while simultaneously facing a number of challenges, including financial, emotional, and knowledge-based stressors.[1] Patients may also face many barriers to treatment, which can have an adverse impact on health outcomes.[1] Among the most significant barriers cancer patients report are financial problems, inadequate or a lack of health insurance, poor communication with their healthcare providers, and lack of psychosocial care.[1]

The 2008 IOM report, *Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs*, underscored the importance of integrating mental health specialists into the care of cancer patients. As many as one-third of cancer patients experience persistent distress, which can interfere with treatment.[3,4] Fewer than half of cancer patients receive the psychiatric care they need.[5]

Further, preliminary secondary analysis of the National Health and Nutrition Examination Survey (NHANES) 2003-2008 data revealed these significant findings:[6]

- 9.5 percent of individuals with cancer meet criteria for major depression compared to 7.5 percent of non-cancer patients
- More cancer patients report moderate symptoms of depression (10.2 percent versus 7.1 percent, respectively)
- Cancer patients express more depressive symptoms (3.3 percent compared to 2.9 percent).

From an epidemiological perspective, enhanced understanding of the risks that depression and other psychological sequelae pose to cancer patients may propel the inclusion of mental health interventions as a standard part of care onto the national agenda.

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The landscape of cancer care has changed dramatically over the past several decades. An illness that was often fatal now represents both an acute life-threatening illness and a chronic condition.[1] While there have been tremendous advancements in treating the physiological aspects of cancer, management of related psychosocial and emotional issues has lagged behind.[1] Although psychological distress is common in cancer patients, it often goes unrecognized and untreated.[7,8]

One reason may be that access to specialized psycho-oncology providers is limited—even absent in some institutions,[9] placing the responsibility to care for the patient's emotional needs on the medical team, nursing staff, and family caregivers. Among cancer

programs that do monitor for psychological distress and refer to specialized psychiatric providers, few have implemented systematic assessments of depression with validated and reliable tools.[10,11] Accordingly, today's cancer programs have the opportunity to incorporate quality and outcome metrics associated with the screening and management of psychiatric sequelae in the development of specialized psycho-oncology services.[10]

Here's how one ACCC member program in Louisville, Ky., developed the Norton Cancer Institute Behavioral Oncology Program (NCIBOP), a comprehensive, embedded psychiatric program with an emphasis on integrating high-quality psychiatric care to medically complex patients.

An Overview of NCIBOP

The Norton Cancer Institute employs 29 physicians and 28 advanced practice providers (APRN/PAs) in medical, surgical, gynecological, radiation, and behavioral oncology. Norton Cancer Institute is part of the Norton Healthcare System with practice sites at each of the four adult hospitals in Louisville, as well as several other locations within Kentucky and Southern Indiana. As a fully embedded psychiatric program, NCIBOP offers a spectrum of services to help medically complex patients and their families deal with cancer and associated quality of life (QOL) issues.

NCIBOP services include individual therapy, group therapy, couples and family therapy, and pharmacological and non-pharmacological management. The program is comprised of three APRNs, one psychiatrist, a part-time social worker, a nurse, and two administrative staff. NCIBOP providers work collaboratively with oncology providers to deliver holistic care. Consultations are available in both inpatient and outpatient settings, with frequent dialogue among multidisciplinary specialists in both formal settings, such as tumor boards and other clinical meetings, and informal settings. NCIBOP acts as a liaison between patients, providers, and other team members; consistent assessment of patient distress along the cancer trajectory is a foundational component of the program.

Currently, Norton Cancer Institute clinics assess patient distress using the NCCN Distress Thermometer (DT). Patients are screened upon initiation of care at Norton Cancer Institute, followed by ongoing assessment. Similar to the pain scale, this instrument asks patients to rate their current level of distress on a scale of 0 to 10.[12-14] The DT allows for a brief, effective assessment of distress and is easily understood by medically-ill individuals.[15,16] Patients with a score of 4 or greater are offered a referral to NCIBOP. Currently Norton Cancer Institute clinics use this tool to assess distress in 100 percent of patients, as monitored through Quality Oncology Practice Initiative (QOPI) metrics. Regardless of the distress score, providers assess patient needs and refer patients who could benefit from specialized mental health services.

Despite the importance of evidence-based care, few studies have addressed the impact of sequential assessment paired with evidence-based interventions in the cancer patient population.[17] In 2013 NCIBOP implemented quality measures as the result of a quality improvement project for the evaluation of program outcomes. Specifically, NCIBOP used the Patient Health Questionnaire (PHQ-9) as a means to enhance patient-centered measures of care and to measure NCIBOP outcomes. (View the PHQ-9 online at: accc-cancer.org/oncology_issues/MA2016.asp.) In addition to implementation of consistent use of the PHQ-9, NCIBOP also began routine use of the Generalized Anxiety Disorders Questionnaire 7-item (GAD-7) to establish patient outcomes related to anxiety. An overview of the NCIBOP patient population, quality measures using the PHQ-9, a quality study with relevant findings, and program information are discussed below.

Patient Population & Services

NCIBOP providers see approximately 800 new patient visits annually, with 6,000 total patient visits per year. More females (73 percent) seek care through behavioral oncology than males (27 percent). The mean age of patients seen at NCIBOP is 56. Patients are predominantly Caucasian (90 percent), followed by African Americans (8 percent), and other races (2 percent). Outpatient consultations account for the majority of patient contacts, comprising 73 percent of new patient contacts.
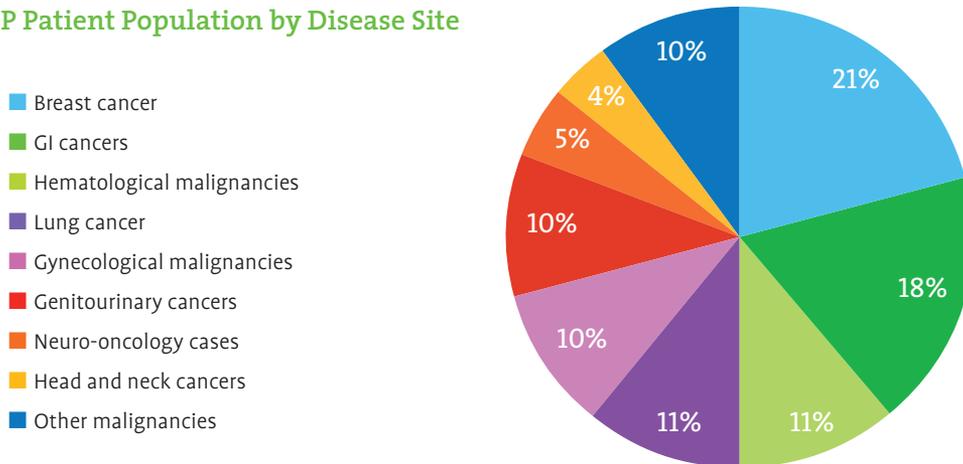
On average, patients are seen four days from the time the referral is received for their new patient appointment. Figure 1, right, shows the percentage of patients treated by cancer type. Approximately 6 percent of patients seen through the program are family caregivers. A broad range of psychiatric conditions are noted, including:

- Depressive disorders (36 percent)
- Anxiety disorders (24 percent)
- Adjustment reactions (11 percent)
- Bipolar and related disorders (7 percent)
- Delirium and/or other psychiatric illnesses (22 percent).

In 2013 NCIBOP conducted a clinical microsystem assessment. Chart reviews of patients seen in NCIBOP during 2012 revealed that 59 percent of patients were diagnosed with and treated for a depression spectrum disorder. Consistent with the psycho-oncology literature, depression is a predominant mental health diagnosis seen at NCIBOP. Co-existing conditions include anxiety disorders, substance abuse disorders, and personality disorders.

In addition to NCIBOP's annual 800 new visits, an additional 250 patients are referred for services but decline them or do not keep their appointment. The primary barriers for pursuing psychiatric services include insurance constraints and stigmas associated with accessing mental health services. Patients who choose

Figure 1. NCIBOP Patient Population by Disease Site

- Breast cancer
- GI cancers
- Hematological malignancies
- Lung cancer
- Gynecological malignancies
- Genitourinary cancers
- Neuro-oncology cases
- Head and neck cancers
- Other malignancies

(Pie chart values: Breast cancer 21%, GI cancers 18%, Hematological malignancies 11%, Lung cancer 11%, Gynecological malignancies 10%, Genitourinary cancers 10%, Neuro-oncology cases 5%, Head and neck cancers 4%, Other malignancies 10%)

not to access specialized mental health services are offered alternative resources through Norton Cancer Institute's social work team and Cancer Resource Center facilities to ensure patient needs are evaluated and met. The Cancer Resource Centers provide resources such as massage therapy, nutrition counseling, and music therapy. Additionally, nurse navigation staff is available on-site at each Cancer Resource Center to provide access to cancer literature, educational materials, and clinical trial searches. The Cancer Resource Centers also host monthly events to promote physical wellness, emotional well-being, and networking opportunities for patients. Patients have access to free yoga classes, support groups with trained staff, and Tai Chi.

Social service providers and navigation staff are available to any patient seen through the healthcare system free of charge. Patients may be re-identified as needing psychiatric services through these programs and will be accepted into a more appropriate level of care as necessary. When a patient refuses psychiatric care or a barrier to care is identified, NCIBOP makes treatment recommendations to oncology providers to ensure the patient care need is met.

Specialty integration and care is provided through interdisciplinary case collaboration, including medication suggestions. The psychiatric team's presence on-site with the oncology team allows for timely triaging of acute psychiatric care needs and significantly reduces lengthy wait times for the first appointment, which is often typical in the psychiatric community. Providing prompt patient care during times of peak stress maximizes patient benefit and allows for enhanced continuity of care among multiple specialty providers.
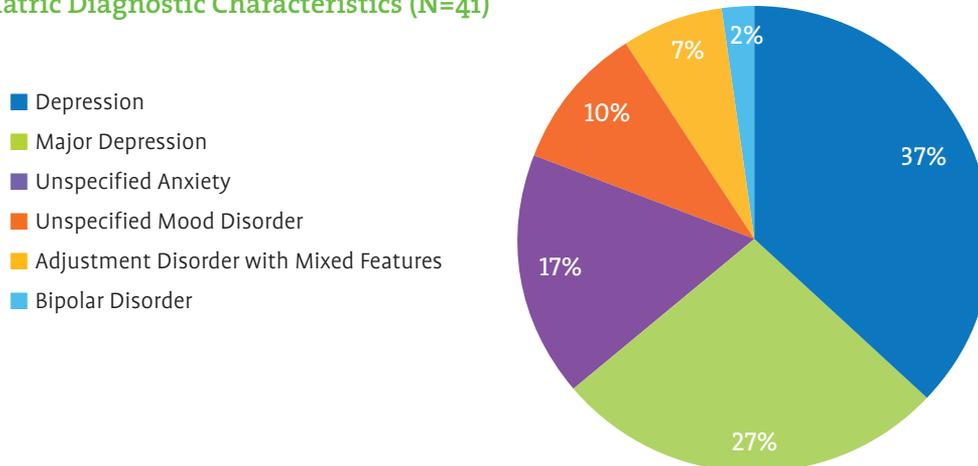
NCIBOP Quality Study

In 2014 NCIBOP conducted a quality study to better understand its practice patterns and population; findings are discussed below, including implications for integrated psychiatric care in oncology facilities.

Patient Sample. The study included 41 patients seen for an initial evaluation in the outpatient setting between Jan. 1–Mar. 31, 2013. Study participants were male and female patients, 18 years of age and older, with an oncologic diagnosis. Individuals seen at NCIBOP who did not have a cancer diagnosis (family members or those with benign disorders), inpatient consultations, and individuals seen for fewer than two visits were excluded; 107 patients were excluded based on these criteria.

Intervention. NCIBOP implemented sequential assessment of depression using the PHQ-9. The information technology (IT) team built the PHQ-9 template and synopsis reporting features into the electronic health record (EHR) to enhance data aggregation opportunities. NCIBOP providers entered PHQ-9 scores into the EHR, comparing subsequent scores against baseline data. Evidence-based practice guidelines related to the treatment and management of depression were disseminated to the provider team. Providers used the medications approved for the treatment and management of depression in conjunction with individual psychotherapy. Practice observations and opportunities for enhancing care with evidence-based interventions were shared with providers.

Instrument. The PHQ-9 survey is based on the diagnostic criteria for depression and pairs well with a clinical interview to determine the presence of depressive illness.[18-22] The tool consists of 9 questions (with scores ranging from 0 to 3) to determine the presence and severity of depressive illness. Total scores of 1-5 indicate minimal depression, 6-10 mild depression, 11-14 moderate depression, 15-19 moderately severe depression, and 20-27 severe depression.[18,19,22] Using a cut-off score of 10 or higher, the tool has a high sensitivity (0.93) and specificity (0.85) and acceptable positive and negative predictive values.[23] In addition to demonstrating the capacity to ascertain depression outcomes,[20] the one-page PHQ-9 is cost-effective—with no copyright or distribution restrictions—and easy for patients and clinicians to use.

Figure 2. Psychiatric Diagnostic Characteristics (N=41)

Legend:
- ■ Depression
- ■ Major Depression
- ■ Unspecified Anxiety
- ■ Unspecified Mood Disorder
- ■ Adjustment Disorder with Mixed Features
- ■ Bipolar Disorder

Pie chart values: 37%, 27%, 17%, 10%, 7%, 2%

Data Collection. NCIBOP providers reviewed new patient charts for documentation of the PHQ-9 in the EHR. Data was gathered on all newly-referred patients to the NCIBOP who met inclusion criteria from Jan. 1–Mar. 31, 2013. The six-month retrospective chart review concluded Sept. 30, 2013. Data was de-identified to maintain patient privacy.

Data aggregation was an ongoing process. The PI (principal investigator) analyst and the department manager shared responsibility for data collection with quality assurance checks to ensure data integrity. They extracted socio-demographic and clinical data from the patient charts, including age, gender, race, ethnicity, educational level, religious affiliation, marital status, and employment status. Clinical data included cancer type and stage. Provider documentation in the EHR was reviewed for:
- PHQ-9 entry at each visit
- Psychiatric diagnosis
- Treatment plan and rationale, including psychopharmacological interventions and non-pharmacological interventions
- A plan for follow-up care.

Implementation Approval. The Western Institutional Review Board (WIRB) reviewed the study and granted a waiver of authorization (approval #1140717). The Norton Healthcare Office of Research Administration (NHORA) approved the study (NHORA #13-N0160).

Results. The majority of the patient sample was married, Caucasian females. The mean age of participants was 58 (SD=11.3) years of age. On average, patients were seen for 5.5 (SD=3.1) visits. Socio-demographic characteristics are presented in Table 1, right. NCIBOP providers obtained cancer diagnostic and staging variables (Table 2, page 28); however, caution should be taken when interpreting this variable as the medical record did not always clearly describe times of progression or remission. The most frequent diagnosis among participants was breast cancer (34.1 percent). Psychiatric diagnosis was most often reported as unspecified depression (37 percent) or major depression (27

percent). Psychiatric diagnosis among the study participants is found in Figure 2, above.

At the initial evaluation, the PHQ-9 was entered into the EHR 93 percent of the time; at follow-up visits the PHQ-9 was entered 84 percent of the time. Provider documentation review revealed 100 percent of patients received appropriate psychiatric diagnosis based on DSM-5 criteria, 89 percent of patients received approved medication interventions, and 100 percent of notes included rationales for treatment with follow-up planning. All patients received supportive psychotherapy. NCIBOP providers prescribed a variety of medications including:
- Anti-depressants (76 percent)
- Mood stabilizers (22 percent)
- Anxiolytics (49 percent)
- Sleep aids (20 percent).

Some patients received more than one pharmacological intervention.

Patients showed benefit in all areas of PHQ-9, including a statistically significant reduction in overall PHQ-9 score after intervention ($p=0.0098$). Four specific items on the PHQ-9 showed significant reduction post-intervention including:
- Feeling down, depressed, or hopeless ($p=0.011$)
- Trouble with sleep ($p=0.01$)
- Feeling bad about yourself or that you are a failure or have let your family down ($p=0.006$)
- Difficulty with psychomotor agitation or retardation ($p=0.054$).

Additional information can be found in Table 3, page 29.

Translating Data into Evidence-Based Practice Interventions

Previous research has identified variances among cancer patients diagnosed with depression and those who receive antidepressants.[24]

Table 1. Socio-Demographic Characteristics of the Study Group

CHARACTERISTIC	n	PROPORTION (%)
Gender		
Male	9	21.90%
Female	32	78.00%
Race		
Caucasian	36	94.70%
African American	2	5.26%
Marital Status		
Married	26	65.00%
Divorced	5	12.50%
Widowed	4	10.00%
Separated	1	2.50%
Never Married	3	7.50%
Partner	1	2.50%
Educational Attainment		
Some High School	4	10.50%
12th Grade	12	31.50%
Some College	11	28.90%
Bachelor's Degree	8	21.00%
Post-graduate Degree	3	7.80%
Employment Status		
Employed	18	45.00%
Unemployed	4	10.00%
Retired	9	22.50%
Disabled	9	22.50%
Religious Affiliation		
Yes	21	72.40%
No	8	27.50%

Table 2. Cancer-Associated Characteristics and Staging		
CHARACTERISTIC	n	FREQUENCY (%)
Cancer Diagnosis		
Hematologic malignancy	3	7.30%
GI cancer	1	2.40%
Colon cancer	3	7.30%
Brain tumors	3	7.30%
Breast cancer	14	34.10%
Gynecological cancers	6	14.60%
Lung cancer	4	9.70%
Pancreatic cancer	1	2.40%
Head and neck cancers	1	2.40%
Other	5	12.10%
Cancer Stage		
Stage 0	1	2.40%
Stage I	9	21.90%
Stage II	13	31.70%
Stage III	4	9.70%
Stage IV	12	29.20%
Remission	2	4.80%

In 2006 the IOM reported fewer than 11 percent of cancer patients received evidence-based interventions.[25] The integrated psycho-oncology program at Norton Cancer Institute is a model for high quality care. Indeed, NCIBOP's evidence-based care far exceeds the national norm described in the IOM report.[25]

Since the release of the 2001 IOM report, *Crossing the Quality Chasm*, emphasis has been placed on ways healthcare systems can improve care. The report identified safety, patient centeredness, effectiveness, timeliness, efficiency, and equality as six overarching aims to better meet patient needs.[26,27] For cancer programs, implementation of processes and structured care interventions in these areas may help improve quality of care, patient quality of life, and ultimately outcomes.[27]

Depression remains one of the most prevalent and treatable mental health disorders.[18] The integration of evidence-based practice guidelines in clinical settings is one approach to minimizing broad variation in care delivery across clinicians.[27-29] One approach to enhance quality in psychiatric practices is through the use of valid and reliable patient questionnaires to assess patient outcomes.[28,30] Among depressed adults, medications and psycho-therapy are both evidence-based interventions for treatment and management.[31-35]

Still, Oldham and colleagues have found that psychiatry, as a discipline, struggles to adhere to evidenced-based treatment guidelines.[28] Factors contributing to the under-utilization of clinical practice guidelines include:[28,29]
- Lack of awareness regarding guidelines
- The complexity of bio-psycho-social interactions
- The absence of psychiatric providers in certain regions.

Table 3. Mean Differences in PHQ-9 Total and Item Scores

INDICATOR	PRE-INTERVENTION	POST-INTERVENTION	t-VALUE	p-VALUE
Total PHQ-9 Score	11.34 (± 6.18)	8.43 (± 5.27)	2.71	p = 0.009*
Anhedonia	1.20 (± 1.00)	1.14 (± 0.88)	0.66	p = 0.515
Depressed	1.51 (± 1.07)	1.09 (± 0.88)	2.66	p = 0.011*
Sleep	1.80 (± 1.16)	1.24 (± 1.09)	2.68	p = 0.011*
Fatigue	2.12 (± 0.93)	1.70 (± 0.96)	1.83	p = 0.750
Appetite	1.43 (± 1.02)	1.21 (± 1.15)	1.03	p = 0.311
Failure	1.02 (± 1.25)	0.53 (± 0.83)	2.91	p = 0.006*
Concentration	1.24 (± 1.11)	0.95 (± 1.18)	1.27	p = 0.209
Psychomotor	0.76 (± 0.99)	0.39 (± 0.80)	1.99	p = 0.054*
Suicide	0.17 (± 0.49)	0.07 (± 0.34)	1.16	p = 0.253
Distress Score	3.80 (± 3.68)	0.90 (± 1.78)	5.03	p = 0.000**

Note: *p <0.05. **p < 0.01.

As a result, mental health interventions are often not evidence-based—despite the known importance of delivering effective and scientifically based care.[36]

Screening for Depression Using the PHQ-9

In efforts to improve quality healthcare for mental health conditions, the IOM recommended that clinicians use reliable and valid patient questionnaires routinely to assess progress and outcomes in patients.[25] An extensive database of psychometric scales exists within the field of psychiatry; however, further research is needed within the field to strengthen the recommendation of a single tool.[29] A well-studied, reliable, and valid tool for the measurement of depression is the PHQ-9.[18,37,38] As stated previously, the PHQ-9 is a brief tool that is used with medically complex patient populations, including the cancer patient population.[39-42] Using a cut-off score of greater than or equal to 8, one study found the PHQ-9 to be 93 percent sensitive and 81 percent specific.[42]

There is currently no benchmark data related to use of the PHQ-9 in cancer patient populations. An opportunity exists to establish benchmarks within the field of psychiatry and psycho-oncology. The PHQ-9 is a brief scale by comparison to many other depression measures and consists of the criteria on which the diagnosis of depression is based, meaning this tool partners well with a clinical interview.[18,43] The NQF endorses outcome measurements for mental health, including measures that focus on depression and the use of standardized psychometric scales, specifically the PHQ-9.[21] Epidemiological studies, including NHANES and the Behavioral Risk Factor Surveillance System (BRFSS), use the patient health questionnaire series (PHQ-8/9) for assessment of depression to gather national study data.[44]

Current Practice with Psychometric Scales

Currently broad variability exists among measurements used in psychiatry and psycho-oncology departments. The 2006 IOM report, *Improving the Quality of Health Care for Mental and Substance Use Conditions*, states that as few as 27 percent of studies reviewed showed adherence to clinical guidelines, and as few as 10.5 percent of individuals were found to receive evidence-based interventions.[25] The IOM recommends that cancer programs use patient-centered decision-making to engage patients in their care, including information regarding options for and effectiveness of treatments.[25]

A better understanding of a patient's baseline presentation allows for ongoing assessment of interventions and identifies opportunities to focus on targeted areas for clinical improvement.[28] The methodology and implementation of quality improvement initiatives within the mental health arena is in its very early stage of development. A dearth of information exists within the mental health community with regard to consistently used metrics and benchmarking to assess clinical and functional outcomes.[30,45] A gap remains between clinical care and evidence-based practice guidelines.[25,45] The American Psychiatric Association (APA) endorses pharmacotherapy, supportive psychotherapy, and combined medication management and psychotherapy as

efficacious in depressed patients.[46] After integration of evidence-based practice interventions within programs, anticipated outcomes include improvement in depressive symptoms, reduced recurrence risk, and reduction in depression related to morbidity and mortality.[46]

Importance of Quality

The implementation of quality and process improvement initiatives provides a foundation for aggregating department-specific outcomes. Study data may be helpful for establishing benchmarks internally and with other psycho-oncology practices. Multi-center collaboration studies are needed to better understand the unique needs of specialized patient populations. As the national healthcare agenda continues to evolve, metric-based outcome studies will be necessary to articulate the importance of mental health interventions across cancer settings. With the advent of the medical home and further integration of mental health providers into medical settings, the capacity to fully explain the added value of specialized mental health services and to advocate for these services is more important than ever before.

Systematic Assessment of Depression in Oncology Programs

Cancer clinicians can easily overlook the diagnosis of depression, assuming it to be a reflection of the patient's adaption to illness and thus minimizing the severity of depression.[47,48] Since psycho-social interventions can enhance adaptation to illness, screening individuals to determine the need for a psychiatric referral is an important component of care. Multiple studies have documented the importance of screening for and identifying patients at high risk for emotional distress.[2,3,12-16,49-56] Despite this evidence, screening for distress in cancer patients is still not consistently practiced, with estimates that fewer than half of cancer patients with distress are identified.[3] As few as 10 percent of cancer patients are referred for specialty care with psycho-oncology providers, thus limiting opportunities to improve quality of life, treatment adherence, and potential prognosis.[53,54]

Although there is a significant body of literature supporting the psychological care for cancer patients, there is a gap with respect to program availability and practice.[57-59] There are few specialty-trained providers equipped to address the psychological and emotional needs of cancer patients. In recognition of this need, there are emerging models for enhancing collaboration between mental health and medical health teams.[60,61]

One systematic review of outcomes resulting from screening for depression in cancer patients identified 19 studies that address the accuracy of screening, including one trial evaluating treatment efficacy for major depression. No trials specifically examined changes in outcomes based on the implementation of screening alone.[2] McMillan and colleagues conducted a study that showed

interdisciplinary, standardized, systematic assessment of depression in cancer patients enrolled in hospice care was associated with significant improvement in depression and quality of life.[62] Complicating the issue of systematic assessment in cancer patient populations is the lack of consensus among psycho-oncology providers regarding which psychometric instrument is most appropriate for use in this patient population.

Consequences of Unmet Psychosocial Needs

Left untreated, psychological and emotional sequelae have significant consequences. Psychological impairment and the presence of mental health problems, including depression, anxiety, post-traumatic stress symptoms (PTSS), and post-traumatic stress disorder (PTSD) contribute to:[1,2,8,15,52,54,63-74]

- Role impairment
- Reduced compliance with medical treatments
- Reduced quality of life
- Increased medical costs
- Prolonged hospitalizations
- Higher utilization of medical care
- Greater symptom severity
- Poorer medical outcomes.

In addition, the failure to assess depression in cancer patients ignores depression as a treatable illness and inadequately attributes depression as a possible result of a deeper physiological process that may need further evaluation.[47,48,63,65-67,69]

Depression contributes to impairment in personal, social, occupational, and family functioning.[52,50,75] Untreated distress and lack of available psychosocial support place families at risk for role strain and impaired family functioning.[52,55,76] As distress exists along a continuum, waiting until severe levels of distress occur fails to provide timely care that could prevent catastrophic results.[77] In severe cases, depression may even lead to an enhanced desire for early death or suicide.[24,76,78-82] Cancer patients are at an increased risk for suicide. Many factors contribute to this increased risk, including:[47,83,66]

- Pain
- Physical symptoms
- Advanced illness with poor prognosis
- Depression resulting in hopelessness
- Delirium and disinhibition
- Loss of control and helplessness
- Pre-existing psychopathology
- Suicidal history
- Inadequate social support.

Individuals with cancer and concurrent depression and anxiety have more difficulties with somatic concerns, disabilities, unexplained symptoms, and increased symptom severity.[1,8,24] Co-morbid

psychiatric illnesses have been associated with unhealthy behaviors and reduced adherence to anti-neoplastic treatments.[1,24] Distress can contribute to a reduced level of hope, thus translating to a belief that cancer treatments are not worthwhile and contributing to poor follow-through with potentially curative treatments. Optimism relates to an underlying capacity for resilience, which leads to a greater ability for problem solving, enhanced coping strategies, and an ability to find meaning in illness.[1] The presence of psychological distress reduces these functions and increases the risks of possible long-term complications.[1]

Policy Support for Integrating Psychosocial Assessment & Management

At the national level, the Commission on Cancer (CoC) has tasked oncology programs with finding ways to implement distress screening and referral to specialized psychosocial providers.[11,84,85] Since the 2008 IOM report, efforts have expanded to include the provision of psychosocial screening and the addition of mental health providers to deliver this specialty care. With the support of multiple organizations, including the American Psychosocial Oncology Society (APOS), the National Quality Forum (NQF), the CoC and the American College of Surgeons (ACoS), the International Psychosocial Oncology Society (IPOS), and the ASCO Quality Oncology Practice Initiative (QOPI), the importance of quality mental and emotional health interventions in cancer populations will continue to stay on the national agenda. In addition, current QOPI metrics require the identification and documentation of patients' emotional needs by oncology providers.[86]

Going Forward

Bio-medical approaches to treatment continue to advance, and psychosocial interventions supporting quality of life must keep pace.[1] As the field of psycho-oncology continues to grow, providers will need to support evidence-based psychosocial assessments and psychiatric measures to describe patient and program outcomes. With the inclusion of psychosocial measures for accreditation at the majority of cancer programs nationwide, cancer programs will be pushed to screen for psychological sequelae as a routine part of care.[11, 84, 87] Once patients enter care with specialized psychiatric providers, the ability to measure outcomes is important for describing clinical care, advocating for resources, and sustaining psychiatric programs. Use of the PHQ-9, a reliable and valid measure of depression severity,[18] at routine intervals in specialized cancer mental health settings provides a metric for ongoing analysis of patient outcome data. Evidence supports the use of validated screenings as a way to minimize treatment variability. Combined with comprehensive medication management and psychotherapeutic interventions, patients are likely to have the most optimal outcomes.[21, 31]

Findings from the NCIBOP study suggest that implementation of quality metrics, sequential assessment with validated tools, and the integration of evidence-based treatment guidelines are feasible. Aggregation of patient outcome data showed statistically significant improvement in PHQ-9 scores after intervention with the NCIBOP providers when using evidence-based treatment approaches. With the evolution of healthcare policy and a rising demand for quality, the establishment of standards for care and the inclusion of quality metrics are necessary to measure patient outcomes effectively. ◘

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References

1. Institute of Medicine. *Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs*. Washington, DC: National Academies Press; 2008.

2. Meijer A, et al. Depression screening and patient outcomes in cancer: a systematic review. *PLoS One*. 2011;6(11): e27181. Available online at: plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0027181. Last accessed Jan. 4, 2016.

3. Sellick S, et al. Screening new cancer patients for psychological distress using the hospital anxiety and depression scale. *Psycho-Oncol*. 2007;16(6):534-542.

4. Singer S, et al. Screening for mental disorders in laryngeal cancer patients: a comparison of 6 methods. *Psycho-Oncol*. 2008;17(3):280-286.

5. Fromer MJ. Study: fewer than half of all advanced cancer patients who need psychiatric help receive it. *Oncol Times*. 2006;28(10):7-10.

6. Archer-Nanda E, Loprinzi P. Secondary analysis of National Health and Nutrition Examination Survey Data. 2013; unpublished raw data.

7. Ryan H, et al. How to recognize and manage psychological distress in cancer patients. *Euro J Cancer Care*. 2005;14(1):7-15.

8. Shimizu K, at al. Clinical biopsychosocial risk factors for depression in lung cancer patients: a comprehensive analysis using data from the Lung Cancer Database Project. *Annals Oncol*. 2012;23(8):1973-1979.

9. Ferrell B. Dignity therapy: advancing the science of spiritual care in terminal illness. *J Clin Oncol*. 2005;23(24):5427-5428.

10. Carlson LE, et al. Online screening for distress, the 6th vital sign, in newly diagnosed oncology outpatients: Randomized controlled trial of computerized vs personalized triage. *Brit J Cancer*, 2012;107(4):617-625.

11. Jacobson P. Changes over time in quality of psychosocial care: results from the Quality Oncology Practice Initiative (QOPI). *J Clin Oncol*. 2010:28(15)Suppl. Abstract 6000.

12. Holland JC, et al. *Distress: Treatment Guidelines for Patients* (Version II). Atlanta, Ga: National Comprehensive Cancer Network & American Cancer Society, Inc.; 2005.

13. McCorkle R, et al. The silent killer: psychological issues in ovarian cancer. *Holistic Nurs Pract*. 2003;17(6):300-308.

14. Norris L, et al. Distress, demoralization, and depression in cancer survivorship. *Psych Annals*. 2011;41(9):433-438.

15. Ransom S, et al. Validation of the distress thermometer with bone marrow transplant patients. *Psycho-Oncol*. 2006;15(7):604-612.

16. Shim EJ, et al. Distress and its correlates in Korean cancer patients: pilot use of the distress thermometer and the problem list. *Psycho-Oncol*. 2008;17(6):548-555.

17. Berard RM. Depression and anxiety in oncology, the psychiatrist's perspective. *J Clin Psych*. 2001;62(Supplement 8):58-61.

18. Kroenke K, et al. The PHQ-9: validity of a brief depression severity measure. *J Gen Internal Med*. 2001;16(9):606-613.

19. Kroenke K, Spitzer, RL. The PHQ-9: A new depression diagnostic and severity measure. *Psych Annals*. 2002;32(9):1-7.

20. Lowe B, et al. Measuring depression outcome with a brief self-report instrument: sensitivity to change of the Patient Health Questionnaire (PHQ-9). *J Affective Disorders*. 2004;81(1):61-66.

21. National Quality Forum. NQF Endorses Mental Health Outcome Measures. Available online at: qualityforum.org/News_And_Resources/Press_Releases/2012/NQF_Endorses_Behavioral_Health_Measures.aspx. Last accessed Jan. 4, 2016.

22. Spitzer R, et al. Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. *JAMA*. 1999;282(18):1737-1744.

23. Wittkampf K, et al. The accuracy of Patient Health Questionnaire-9 in detecting depression and measuring depression severity in high-risk groups in primary care. *General Hospital Psychiatry*. 2009;31(5):451-459.

24. Gruneir A, et al. Depression in patients with advanced illness: an examination of Ontario complex continuing care using the Minimum Data Set 2.0. *Palliative & Supportive Care*. 2005;3(2):99-105.

25. Institute of Medicine. Improving the Quality of Health Care for Mental and Substance Use Conditions: Quality Chasm Series. Washington, D.C.: National Academies Press; 2006.

26. Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, D.C.: National Academies Press; 2001.

27. Stanik-Hutt J, et al. The quality and effectiveness of care provided by nurse practitioners. *J Nurse Practit*. 2013; 9(8):492-500.

28. Oldham JM, et al. Quality improvement in psychiatry: why measures matter. *J Psychiatric Pract*. 2008;14(2):8-17.

29. Wobrock T, et al. Quality assurance in psychiatry: quality indicators and guideline implementation. *Eur Archives Psych Clin Neuroscience*. 2009;259(2):S219-S226.

30. Valenstein M, et al. Quality indicators and monitoring of mental health services: what do frontline providers think? *Amer J Psych*. 2004;161(1):146-153.

31. Agency for Health Care Research and Quality: U.S. Department of Health and Human Services. Screening for Depression in Adults and Older Adults in Primary Care: An Updated Systematic Review; 2009. Available online at: uspreventiveservicestaskforce.org/uspstf09/adultdepression/addepres.pdf. Last accessed Jan. 5, 2016.

32. Center for Quality Assessment and Improvement in Mental Health. Treatment for Moderate Depression. Available online at: cqaimh.org/Report.asp?Code=APAD0001AD&POP=0. Last accessed Jan. 5, 2016.

33. Agency for Healthcare Research and Quality. Practice Guideline for the Treatment of Patients with Major Depressive Disorder. Available online at: www.guideline.gov/content.aspx?id=24158. Last accessed Jan. 5, 2016.

34. Katon W, Schulberg, H. Epidemiology of depression in primary care. *General Hosp Psych*. 1992;14(4): 237-247.

35. O'Connor EA, et al. Screening for depression in adult patients in primary care settings: A systematic evidence review. *Annals Internal Med*. 2009;151(11):793-803.

36. Aarons GA. Mental health provider attitudes toward adoption of evidence-based practice: the evidence-based practice attitude scale. *Mental Health Services Research*. 2004;6(2):61-74.

37. Arroll B, et al. Validation of PHQ-2 and PHQ-9 to screen for major depression in the primary care population. *Ann Family Med*. 2010;8(4):348-353.

38. Dominquez-Rafer C, Lin S. What are the sensitivity and specificity of the PHQ-2 and PHQ-9 in screening for depression? *Evidence-Based Practice*. Available online at: https://mospace.umsystem.edu/xmlui/bitstream/handle/10355/10206/SensitivitySpecificityPHQ-2.pdf?sequence=1. Last accessed Jan. 5, 2016.

39. Fann JR, et al. Depression screening using the patient health questionnaire-9 administered on a touch screen computer. *Psycho-Oncol*. 2009;18(1):14-22.

40. Manea L, et al. (2012). Optimal cut-off score for diagnosing depression with the Patient Health Questionnaire (PHQ-9): a meta-analysis. *Canadian Medical Assoc J*. 2012;184(3):191-196.

41. Omoro SA, et al. Swahili translation and validation of the Patient Health Questionnaire-9 depression scale in the Kenyan head and neck cancer patient population. *Inter J Psych Med*. 2006;36(3):367-381.

42. Thekkumpurath P, et al. Screening for major depression in cancer outpatients: The diagnostic accuracy of the 9-item patient health questionnaire. *Cancer*. 2011;117(1):218-227.

43. Rodin G, et al. The treatment of depression in cancer patients: a systematic review. *Supportive Care Cancer*. 2007;15(2):123-136.

44. CDC. Current Depression Among Adults: United States, 2006 and 2008. Available online at: cdc.gov/mmwr/preview/mmwrhtml/mm5938a2.htm?s_cid=mm5938a2_w. Last accessed Jan. 5, 2016.

45. Hermann RC, et al. Quality indicators for international benchmarking of healthcare. *International J Quality in Health Care*. 2006 Sep;18 Suppl 1:31-38.

46. American Psychiatric Association. Treatment for Moderate Depression, Center for quality assessment and improvement in mental health. Available online at: cqaimh.org/Report.asp?Code=APAD0001AD&POP=0. Last accessed Jan. 5, 2016.

47. Massie MJ, Greenberg DB. Oncology. In Levenson, JL (Ed.), *Psychosomatic Medicine* (pp. 517-534). Arlington, VA: American Psychiatric Publishing, Inc. 2004.

48. Mystakidou L, et al. Preparatory grief, psychological distress, and hopelessness in advanced cancer patients. *Eur J Cancer Care*. 2008;17(2):145-151.

49. Bottomley A. Depression in cancer patients: a literature review. *Euro J Cancer Care*. 1998;7(3):181-191.

50. Hopko DR, et al. The phenomenology and screening of clinical depression in cancer patients. *J Psychosocial Oncol*. 2008; 26(1):31-51.

51. Newport DJ, Nemeroff CB. Assessment and treatment of depression in the cancer patient. *J Psychosomatic Research*. 1998;45(3):215-237.

52. Salvo N, et al. Frequency of reporting and predictive factors for anxiety and depression in patients with advanced cancer. *Clin Oncol*. 2012;24(2):139-148.

53. Smith AB, et al. Validation of an item bank for detecting and assessing psychological distress in cancer patients. *Psycho-Oncol*. 2009;18(2):195-199.

54. Thewes B, et al. Screening for psychological distress and vulnerability factors in women at increased risk for breast cancer: a review of the literature. *Psych Health Med*. 2003; 8(3):289-304.

55. Vahdaninia M, et al. What do predict anxiety and depression in breast cancer patients? A follow-up study. *Social Psych Psych Epidemiology*. 2010;45, 355-361.

56. Zabora J, et al. The prevalence of psychological distress by cancer site. *Psycho-Oncol*. 2001;10(1):19-28.

57. Greenberg DB. Barriers to the treatment of depression in cancer patients. *J Nat Cancer Institute Monographs*. 2004;32:127-135.

58. Pengelly M, Purnell D. An audit of levels of psychological support referrals for cancer patients. *Cancer Nurs Pract*. 2009;8(1):34-38.

59. Weinberger MI, et al. Depression and barriers to mental health care in older cancer patients. *Inter J Geriatric Psych*. 2010;26(1):21-26.

60. Druss BG, Mauer BJ. Health care reform and care at the behavioral health-primary care interface. *Psych Services*. 2010;61(11):1087-1092.

61. Rhodes KV, et al. Referral without access: For psychiatric services, wait for the beep. *Annals Emergency Med*. 2009;54(2), 272- 278.

62. McMillan SC, et al. Improving hospice outcomes through systematic assessment. *Cancer Nursing*. 0211;34(2):89-97.

63. Akechi T, et al. Somatic symptoms for diagnosing major depression in cancer patients. *Psychosomatics*. 2003;44(3):244-248.

64. Badger T, et al. Depression burden, self-help interventions and side effect experience in women receiving treatment for breast cancer. *Oncol Nurs Forum*. 2001;28(3):567-574.

65. Bowers L, Boyle D. Depression in patients with advanced cancer. *Clin J Oncol Nurs*. 2003;7(3): 281-288.

66. Breitbart W. Psycho-oncology: depression, anxiety, delirium. *Seminars in Oncol*.1994;21:754-769.

67. Gruneir A, et al. Depression in patients with advanced illness: an examination of Ontario complex continuing care using the Minimum Data Set 2.0. *Palliative & Supportive Care*. 2005;3(2):99-105.

68. Kissane D. Beyond the psychotherapy and survival debate: the challenge of social disparity, depression and treatment adherence in psychosocial cancer care. *Psycho-Oncol*. 2009;18(1):1-5.

69. Montgomery C, et al. Predicting psychological distress in patients with leukemia and lymphoma. *J Psychosomatic Research*. 2003;54(4):289-292.

70. Passik SD, Breitbart WS. Depression in patients with pancreatic carcinoma. *Cancer*. 1996;78(3):615-626.

71. Pirl WF, Roth AJ. Diagnosis and treatment of depression in cancer patients. *Oncol*. 1999;13(9):1293-1301.

72. Ryan H, et al. How to recognize and manage psychological distress in cancer patients. *Eur J Cancer Care*. 2005; 14(1):7-15.

73. Spiegel D, Giese-Davis J. Depression and cancer: Mechanisms and disease progression. *Bio Psych*. 2003;54(3):269-282.

74. Valente SM, Saunders JM. Diagnosis and treatment of major depression among people with cancer. *Cancer Nurs*. 1997;20(3):168-177.

75. Dalton SO, et al. Risk for hospitalization with depression after cancer diagnosis: A nationwide, population-based study of cancer patients in Denmark from 1973-2003. *J Clin Oncol*. 2009;27(9):1440-1445.

76. Akechi T, et al. Multifaceted psychosocial intervention program for breast cancer patients after first recurrence: feasibility study. *Psycho-Oncol*. 2007;16(6):517-524.

77. Paterson AG, et al. Screening and treatment of distress. *J Consulting Clin Psych*. 2001;69(2):339.

78. Breitbart W, et al. Depression, hopelessness, and desire for hastened death in terminally ill patients with cancer. *JAMA*. 2000;284(22):2907-2911.

79. Chochinov HM, et al. Dignity therapy: a novel psychotherapeutic intervention for patients near the end of life. *J Clin Oncol*. 2005;23(24):5520-5525.

80. Hooper SC, et al. Preferences for voluntary euthanasia during major depression and following improvement in an elderly population. *Australian J Ageing*. 1997;16(1),:3-7.

81. Kugaya A, et al. Successful antidepressant treatment for five terminally ill cancer patients with major depression, suicidal ideation and a desire for hastened death. *Supportive Care in Cancer*. 1999;7(6):432-436.

82. Suarez-Almazor ME, et al. Attitudes of terminally ill cancer patients about euthanasia and assisted suicide: Predominance of psychosocial determinants and beliefs over symptom distress on subsequent survival. *J Clin Oncol*. 2002;20(8): 2134-2141.

83. Akechi T, et al. Gender differences in factors associated with suicidal ideation in major depression among cancer patients. *Psycho-Oncol*. 2010;19(4):384-389.

84. Commission on Cancer. Cancer Program Standards: Ensuring Patient Centered Care. Available online at: www.facs.org/cancer/coc/cocprogramstandards2012.pdf. Last accessed Jan. 5, 2016.

85. Edge SB, Bura C. Commission on Cancer: Cancer Program Accreditation, Quality Oversight, Patient Centered Standards. Report of the CoC; 2011.

86. Quality Oncology Practice Initiative. (2012). QOPI Certification Participation Guide. Available online at: http://qopi.asco.org/Documents/QOPICertificationAdminManual2012FINAL.pdf. Last accessed Jan. 5, 2016.

87. Jacobson P. Update on the National Quality Standards for Oncology Supportive Care Services. Keynote presentation at the meeting of the American Psychosocial Oncology Society, Huntington Beach, Calif.; 2013.