Multidisciplinary Health Care Professionals' Perceptions of the Use and Utility of a Symptom Assessment System for Oncology Patients

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Abstract

Purpose: Despite growing implementation of electronic symptom assessment in oncology settings, few studies have described how standardized symptom assessment can enhance multidisciplinary care. The Edmonton Symptom Assessment System (ESAS) is a validated measure of symptom burden that has been adopted by Ontario's cancer centers to assess symptoms for patients with cancer. This study examines the perceived value of the ESAS among clinical teams and barriers to its use in enhancing multidisciplinary care.

Methods: Self-completed surveys were administered online to clinical teams at various disease-site clinics at a cancer center in Ontario, Canada.

Results: One hundred twenty-eight nurses, oncology physicians, and allied health professions completed the survey. The majority of nurses (89%), physicians (55%), and other providers (57%) reported referring to ESAS in clinic either "always" or "most of the time." Many of those who either "never" or "rarely" looked at ESAS scores reported finding it more efficient to talk to the patient or do their own assessment to determine symptom issues. Although most of the nurses and allied health professions found the ESAS to enhance patient care, help patients to articulate their symptom issues, and facilitate follow-up with patients with past symptom issues, only approximately half of the physicians agreed with these statements.

Conclusion: Variable adoption of the ESAS by physicians may limit its potential to improve both interprofessional communication and comprehensive symptom control. To encourage consistent use, a symptom assessment system needs to be complementary to the perceived roles of all multidisciplinary team members, including physicians.

Introduction

Adequately addressing symptom needs of patients with cancer often requires the involvement of multidisciplinary providers.[1,2] Nurses and doctors may screen and manage physical symptoms, such as pain and nausea, while other health care providers, such as social workers, focus on psychological and emotional supportive care issues. Evidence shows, however, that providers often underrecognize symptom burden in patients,[3,4] with studies demonstrating that patients with cancer have significant symptom issues such as distress, fatigue, nausea, anxiety, and depression.[5-7]

Standardized symptom assessment in cancer care is purported to help providers better identify symptom needs, improve symptom management, and facilitate multidisciplinary care. Multiple validated tools exist to measure cancer symptoms.[1] Moreover, electronic symptom assessment systems have been successfully implemented in oncology settings.[8-10] Yet few studies have investigated providers' perceptions of how a symptom assessment system can improve multidisciplinary care for patients with cancer.

In 2007, all cancer centers in Ontario, Canada, began implementing the use of an electronic version of the Edmonton Symptom Assessment Scale (ESAS) at every patient visit, thus effectively standardizing cancer symptom screening across the province.[11] The ESAS is a patient-reported, validated tool developed for quick assessment of symptom needs in routine practice.[12-15] This instrument measures the severity (scale of 0 to 10) of nine common cancer physical and psychological symptoms, specifically pain, shortness of breath, nausea, anxiety, depression, tiredness, drowsiness, appetite, and well-being. In addition to Canada, the United Kingdom, the United States, and other countries have used the ESAS in oncology settings.[16-18]

The screening of symptoms occurs at each patient's visit to a cancer center, including first consultation and follow-up visits. Upon arrival at the center, patients have the option of electronically completing the ESAS at a touch-screen kiosk. A printed summary of the symptom scores, including those from previous visits, is then given to the patient to use for discussion with the clinical primary care team, which is composed of the nurse and oncology physician, during the visit. If the patient has high ESAS scores, ideally the clinical team will discuss a care plan with the patient that addresses the symptoms and will make a referral to other multidisciplinary providers as appropriate.

The patient-reported ESAS scores are meant to facilitate dialogue about symptom needs between the patient and health care providers, while encouraging multidisciplinary care and treatment through referrals to other members of the team as required. This study specifically explores how the electronic, standardized ESAS symptom assessment system implemented in Ontario is being used by providers in multidisciplinary teams, its perceived utility, and barriers to its use at a regional cancer center.

Methods

Design, Setting, and Participants

An online survey was administered to all clinical teams at the Juravinski Cancer Centre (JCC) in Hamilton, Ontario. The JCC is a regional cancer center in southern Ontario, serving approximately 23,000 individual patients annually, including

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more than 5,000 new patients, resulting in more than 200,000 patient encounters per year. Since March 2009, approximately 3,500 to 4,000 ESAS reports have been completed each month at the JCC, with the ESAS completed at approximately 50% of visits. All providers in clinical primary teams at the JCC were invited to participate in the survey. The team members included physicians (ie, general practitioner in oncology, medical oncologist, radiation oncologist, and surgical oncologist), nurses (ie, advanced practice nurse, registered nurse, and specialized oncology nurse), and allied health professionals (eg, social worker, dietician, chaplain, etc).

Survey

The research team developed the unique survey on the basis of the relevant literature, expert opinion from multidisciplinary perspectives, and previously used questions.[19] The final 13 questions selected were pilot tested for clarity and relevance by nurses and physicians from another regional cancer center. The main questions focused on (1) the demographics of the providers; (2) the extent to which the providers use the ESAS and reasons why they might not use it; (3) the process of how they use the ESAS, if they do; (4) perceptions of the ESAS's usefulness to their clinical practice, rated on a four-point Likert scale ranging from "strongly agree" to "strongly disagree"; and (5) suggestions for improving the utility of ESAS in the clinical setting.

The research team conducted the survey in March 2010. The Web link to the online survey was e-mailed to all clinical staff at the JCC. Subsequent weekly reminder e-mails and a letter from the JCC president were sent to encourage participation over the 3 weeks that followed. Analysis of survey responses was descriptive, examining the results of the questions by provider type. We dichotomized the four-point scales for ease of reporting. Open-ended responses were coded, and themes were extracted. Ethics approval was obtained from the McMaster University Ethics Review Board (Hamilton, Ontario, Canada).

Results

Of a sample of 239 providers, 128 completed the survey, yielding a response rate of 53.6%. The pilot testing did not result in any revision of the survey instrument, therefore these responses ($n = 33$) were included. Respondents consisted of 51.6% nurses ($n = 66$), 36.7% oncology physicians ($n = 47$), and 11.7% allied health professions ($n = 15$). Women comprised 72% of respondents, reflective of the gender imbalance among nurses, who represent more than half the sample. Table 1 reports the characteristics of the respondent providers, constituting a variety of disease-site teams.

Table 1. Characteristics of Clinician Respondents (N = 128)

Sample Characteristic	No.	%
Sex		
Female	92	71.9
Male	36	28.1
Profession		
Nurse total	66	51.6
Advanced practice nurse	5	11.7
Registered nurse	37	28.9
Registered nurse CON(c)	24	18.8
Oncology physician total	47	36.7
General practitioner in oncology*	6	4.7
Medical oncologist	14	10.9
Radiation oncologist	21	16.4
Surgical oncologist	6	4.7
Other provider	15	11.7
Affiliated disease site(s)†		
Breast	72	56.3
Gastrointestinal	51	39.8
Genitourinary	51	39.8
Lung	46	35.9
Gynecologic	37	28.9
Head and neck	25	19.5
Other	64	50.0
Time in clinical practice, years		
0-5	12	9.4
6-10	19	14.8
11-15	19	14.8
> 15	78	60.9

Abbreviation: CON(c), certified oncology nurse in Canada.

* General practitioner in oncology refers to a general practitioner/internist who provides oncology care in the primary care or cancer center setting.[20]

† Total is > 100% because most providers worked in multiple clinics

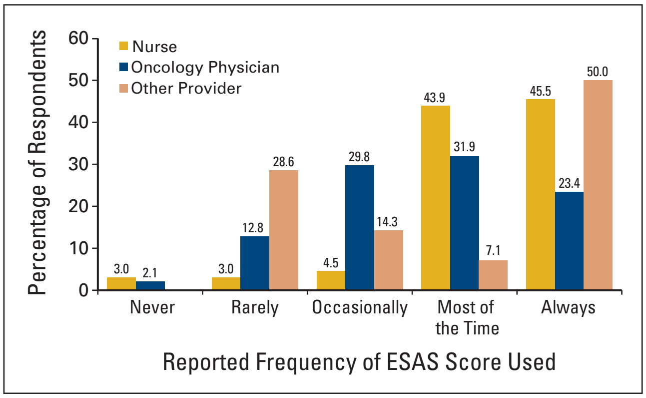

Figure 1. Regularity with which providers look at patient's Edmonton Symptom Assessment System (ESAS) score when provided at the clinical visit (N = 128).

The majority of nurses (89%), physicians (55%), and other providers (57%) reported referring to the ESAS scores in clinic either "always" or "most of the time" (Fig 1). Differences were seen within the physician group, with general practitioners in oncology tending to use the ESAS more (100% used it "always" or "most of the time") than medical and radiation oncologists (56%) and surgical oncologists (17%). Many of those who either "never" or "rarely" looked at ESAS scores reported finding it more efficient to talk to the patient and/or do their own assessment to determine symptom issues. Other common reasons provided for not using the ESAS at every visit were as follows: the scores were not given with the patient's chart

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Table 2. Providers' Perceived Utility of the ESAS

	Nurse		Oncology Physician		Other Provider	
Statement	**No.**	**%**	**No.**	**%**	**No.**	**%**
ESAS enhances patient care	55	84.6	24	51.1	12	80.0
ESAS improves efficiency of the meeting with patient	50	76.9	14	29.8	11	73.3
ESAS enhances my assessment of patient's symptom severity	50	76.9	25	53.2	11	73.3
ESAS helps patients articulate their symptom issues	45	70.3	21	44.7	13	86.7
ESAS provides information on symptoms I don't routinely inquire about	21	33.9	22	46.8	11	73.3
Reviewing current scores is useful in clinical decision making	44	67.7	21	44.7	10	66.7
Reviewing trend of past scores is useful in clinical decision making	50	78.1	19	42.2	9	69.2
ESAS is useful during follow-up of a patient with past symptom issues	51	79.7	21	44.7	10	66.7
Patients often misinterpret the ESAS questions	54	83.1	29	61.7	8	61.5

(nurses, n = 10; physicians, n = 2); the clinic was too busy at that time (nurses, n = 3; physicians, n = 9); symptoms were not relevant to the patient visit (nurses, n = 3; physicians, n = 4), and other providers had already assessed the patient in clinic (nurses, n = 2; physicians, n = 3).

Table 2 presents providers' perceptions of the utility of the ESAS in their clinical practice. Although most of the nurses and allied health professions found the ESAS to enhance patient care (85% and 80%, respectively), help patients articulate their symptom issues (70% and 87%), and aid in following up with patients with past symptom issues (80% and 68%), only approximately half of the physicians agreed with these statements. Interestingly, the majority of providers (62% to 83%), across disciplines, indicated that patients often misinterpret the ESAS questions when completing the instrument. Radiation and surgical oncologists generally expressed that the ESAS was of the least value or benefit to them.

Almost half (45.3%) of the providers offered suggestions to improve the ESAS process. Among nursing responses, one third stated that patients need more initial instruction on how to properly complete the ESAS tool. Only physicians suggested using an ESAS tool that was disease-site specific. The most frequent suggestion was to ensure the availability of patients' past and present scores to providers in the clinic.

Discussion

This study is one of the first to examine multidisciplinary provider perspectives on the use and utility of the ESAS tool in a regional cancer center. This research illuminates some of the challenges of enhancing patient-centered, multidisciplinary care in a large cancer center through the implementation of standardized symptom assessment in the clinic setting.

Overcoming physician resistance to consistent use of the ESAS appears to be a major challenge in achieving multidisciplinary symptom assessment and management. Most providers reported using the ESAS in clinical visits to some extent; however, only a quarter of physicians reported using the ESAS "always," compared with nearly half of nurses and other providers. Moreover, physicians consistently were less likely to agree on the usefulness of the ESAS on multiple dimensions of patient benefit compared with the other providers. Variable adoption of the ESAS by physicians may limit its potential to improve symptom control and interdisciplinary communication. Physicians play a key role in referring patients to other supportive care services, such as pain and symptom management clinics or psychological evaluations for depression.[21-23] Without a formalized initial assessment, supportive care needs of patients with cancer may remain unmet.

Physicians stated that a main reason for not using the ESAS was their preference to assess symptoms on their own. Yet there is evidence that patients are often not asked about their symptoms and that symptom burden is under-recognized by physicians.[3,4] As well, nonstandardized assessments pose challenges for the nonphysician providers in the team with regard to interpreting information and providing appropriate treatment. Another major reason for not looking at ESAS scores for physicians was working in a busy clinic. This is often the nature of clinical practice and was precisely the impetus behind mandating and standardizing symptom assessment across the province.[24] The responses provided by specialized physicians may be indicative of a focus on their medical role in patient care, with less emphasis on multidimensional supportive care. Our results suggest that radiation oncologists and surgeons find it more efficient to center on treatment-related symptomatology rather than more comprehensive assessment. Encouraging physician adoption of the symptom assessment process might require providing tools that are useful in essential tasks and flow easily into physicians' practice patterns. Examples include longitudinal trend reporting, capture of symptoms of treatment-related toxicity,[8] and matched education tools that are triggered by patient distress thresholds.[25]

High use of the ESAS among oncology nurses is not surprising given that their defined role includes in-depth assessment of patient needs, as well as facilitating continuity of care and decision making.[26] Nurses play a key role in effective multidisciplinary care. They share information from their assessments with other providers on the clinical team, which results in patient interventions, referrals, and/or supportive counseling. This partially explains why a physician may not always look at

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the ESAS if a nurse has already used it for assessment in her scope of practice.

Despite some physician resistance to use of the ESAS, our results indicate that the tool likely improves symptom assessment and interdisciplinary communication and care. The vast majority of nurses and other providers, and nearly half of physicians, agree on the utility of the ESAS to improve various dimensions of patient care. These results emerge despite the fact that all three provider types also agree that patients often misinterpret the ESAS questions; this perception implies that these health professionals are indeed inquiring about ESAS symptoms, evidence that the tool successfully fulfills its role in symptom assessment. The ESAS is intended to lead to a discussion among the providers reviewing the scores and with the patient, not as an absolute measure of symptom severity. Quality patient-centered care requires patient input, which the ESAS facilitates. Moreover, nurses and physicians reported that one reason they did not use the ESAS at every clinic visit is because it was already examined by another provider, indicating that interdisciplinary communication is occurring in the clinic. Also, that the single most reported suggestion to improve ESAS was to provide the histogram of past symptom scores to providers supports the positive impact that this system has had on the care process.

The study is limited by not including patient perspectives on whether the ESAS helps manage symptom issues and by providing perspectives from only a single regional cancer center. Second, nonrespondents might have different perspectives, possibly more negative, the exclusion of which could have led to an overestimate of ESAS use. Finally, the limited use by physicians found in our study may be due to the nature of the ESAS tool itself, as it does not provide all pertinent symptom information required by physicians (eg, toxicity-related symptoms).

Our study may provide insights into the enhancement of multidisciplinary care in other facilities with standardized, patient-reported outcome systems. Our results show that members of the multidisciplinary team other than physicians are more able to undertake supportive care responsibilities; if this is true, an efficient and responsive system needs to take advantage of this finding. To encourage consistent use, a symptom assessment system needs to be complementary to the perceived roles of all team members, including physicians. The information provided must efficiently highlight outcomes of interest and streamline care provision, without overburdening patients with excessive questions.

Summary

The implementation of standardized ESAS symptom assessment in Ontario's regional cancer centers represents a unique opportunity to illuminate the challenges of managing cancer symptoms by a multidisciplinary team. Physicians appear more focused on their specialized scope of practice rather than on their role as a member of a larger multidisciplinary team. Nonetheless, standardizing symptom assessment appears to help improve interdisciplinary communication and patient care. Future research is needed to determine which universal symptom assessment system efficiently meets the needs of all providers in the multidisciplinary team.

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Authors' Disclosures of Potential Conflicts of Interest

The authors indicated no potential conflicts of interest.

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Commentary: Encouraging Clinicians to Incorporate Longitudinal Patient-Reported Symptoms in Routine Clinical Practice

By Ethan Basch, MD, and Amy P. Abernethy, MD

The previously ubiquitous clipboards that patients were once handed on entrance to physicians' waiting rooms are being replaced in many practices with web portals, with the expectation that patients will complete online questionnaires before visits. These questionnaires typically ask patients about their past medical history, current medications, allergies, risk factors, insurance information, and other baseline health or administrative data best obtained directly from patients. But it is far less common to use questionnaires for longitudinal tracking of patient health status, for example, to track symptoms, quality of life, functional status, satisfaction with care, or medication compliance.

Why wouldn't we routinely elicit such information from patients over time? After all, it is known that clinicians tend to underestimate the severity and prevalence of patients' symptoms and functional status problems[1]; that patients are more likely to disclose "private" symptoms such as gynecologic or urinary problems via computer[2]; and that including self-reporting in routine practice leads to better symptom control, improved quality of life, enhanced patient-clinician communication, and higher patient satisfaction with care.[3-7] Furthermore, the clinical "review of systems" is not only a standard part of the clinical exam that provides insight into evolving clinical problems and chemotherapy toxicity; its comprehensiveness directly contributes to the level for coding and billing of third-party payors. Longitudinal monitoring of patient health status forms the foundation of good care.

In oncology, longitudinal tracking of patient symptoms and health status has been found to be feasible even among patients with end-stage disease and heavy symptom burdens.[2,3,8] Patients like longitudinal tracking and see it as an indication that their doctors care.[2] Moreover, oncologists feel that this is clinically actionable information that accurately reflects true patient status,[9] and they will hold or reduce dosage of chemotherapy on the basis of patient-reported information.[10]

In clinical trials, it is common for serial assessments of patient-reported symptoms and health status to be collected to understand the patient subjective experience with treatment. Recently, the Food and Drug Administration issued a guidance document indicating that for subjective experiences such as symptoms, patient reporting, rather than clinician documentation, should be considered the standard approach for reporting information.[11]

Given that patient self-reporting has demonstrated benefits, has been shown to be feasible, is common in trials, contributes to patient satisfaction, maximizes billing, and is increasingly affordable as technologies for self-reporting become cheaper, why wouldn't all patients in all practices self-report their own symptoms? Aside from benefits in symptom control and communication, clinicians would save time if patients self-reported information that otherwise would have to be elicited verbally by a doctor or nurse.

In fact, several oncology practices have been collecting patient-reported symptoms and health status information via elec-

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