

# Structured Interview Assessment of Symptoms and Concerns in Palliative Care

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**Objective:** Assessment in palliative care requires a multidimensional review of physical symptoms and psychosocial concerns in a format appropriate for patients with advanced illness. In this study, we describe the initial development and validation of a structured interview for assessing common symptoms and concerns faced by terminally ill individuals.

**Method:** We constructed a 13-item Structured Interview for Symptoms and Concerns (SISC) based on a review of end-of-life issues and administered it to 69 patients receiving palliative care for advanced cancer. Along with the interview, each participant completed visual analog scales (VAS) addressing the same constructs. Test–retest and interrater reliability were determined, as was the concordance between interview ratings and VAS scores.

**Results:** Overall, the interview items had excellent interrater reliability (intraclass correlations were  $> 0.90$ ) and at least moderate temporal stability (test–retest correlations ranged from 0.50 to 0.90). Concurrent validity was evident in the good concordance between interview items and VAS measures (correlations were  $> 0.70$ ). The SISC was also sensitive to individual differences between subgroups of participants who did or did not meet diagnostic criteria for anxiety or depressive disorders.

**Conclusions:** This study demonstrates that structured interviews provide a reliable and valid approach to assessment in palliative care and may be an appropriate alternative for some research applications.

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## Clinical Implications

- Structured interview methods, which are used widely in psychiatric research, are also applicable to assessments in palliative care.
- Depression and anxiety disorders are relatively common among patients who are nearing the end of life.
- Patients diagnosed with mental disorders have greater problems in other quality-of-life dimensions than do patients without mental disorders.

## Limitations

- The present version of the structured interview protocol does not address a comprehensive list of symptoms and concerns.
- Single-item screening for specific constructs is useful in assessing frail patients with advanced illness, but it may not be as psychometrically sound as longer questionnaires.
- Interview assessment requires that patients be capable of discussing physical and psychosocial issues thoughtfully, which restricts its applicability to those who are mentally competent.

**Key Words:** *palliative care, advanced cancer, pain, depression, anxiety, structured interviews*

Assessment in palliative care is a complex process requiring not only a multidimensional perspective that covers a range of physical symptoms but also careful consideration of individuals' existential and social concerns and the state of their mental health. While remaining broadly based, however, palliative care assessments must respect the limits imposed by advanced medical illness on patients' endurance and concentration. Although several questionnaires have been developed to assess symptoms (1–3) or health-related quality of life (4,5), self-administered scales may have limited applicability for some older adults who are terminally ill. In the clinical setting, it is more common for assessments to be structured around simple measures such as visual analog scales (VAS) (6–8). VAS measures can be administered quickly, repeated as required, and tend to have good statistical properties. Nevertheless, this approach also has disadvantages. One is that some patients have difficulty “grasping the metaphor of the continuum represented by the VAS” (9). In addition, VAS measures and other assessment methods, such as numerical rating scales, can be criticized for a lack of intuitive meaning. For example, it is difficult to know what it means to have “5 cm of pain,” and the effort to identify ranges of scores that have more direct intuitive or functional significance remains an active area of research (10,11). These measures may also provide too global an assessment for some important clinical purposes. In the case of depression, VAS scores are comparatively nonspecific for screening terminally ill patients who have clinical depressive disorders identified on the basis of conventional diagnostic criteria (12).

Given these constraints, we considered that an alternative approach based on the methodology of clinician-administered structured interviews could be a worthwhile addition to research in palliative care. Structured interviews are associated most closely with psychiatric research, where they have become the criterion standard for reviewing the defining symptoms of mental disorders (13,14). In this context, structured interviews enhance the reliability of clinical assessments and serve a research function by standardizing diagnostic practices across studies. As with mental health problems, assessments in palliative care rely largely on patient reports of subjective symptoms and concerns, which suggests that the rationale for structured interview assessment is similarly applicable. Moreover, structured interview assessments have been adopted as an approach to single-item screening in studies of such constructs as depression, dignity, and desire for death among people receiving palliative care services (12,15,16), despite the fact that little is known about their reliability, temporal stability, or correlation with other

assessment methods. In this study, we undertook a preliminary validation of a structured interview addressing physical and psychosocial issues common in palliative care.

## Methods

### *Item Selection*

Although many individual symptoms and concerns could be included in a palliative care interview, it is also required that the protocol be relatively brief. Therefore, we attempted to select core dimensions comprising a limited range of common issues with important clinical relevance for palliative care research. Additionally, this validation study was embedded in a larger project examining the correlates of patient attitudes toward the controversial end-of-life practices of euthanasia and physician-assisted suicide (17), which informed the selection of some psychosocial items.

Initially, we reviewed studies that reported the prevalence of physical symptoms within populations having advanced illness (18–20). We considered it important to include highly frequent discomforting physical symptoms, and we selected the specific problems of pain, dyspnea, drowsiness, nausea, and weakness.

We drew psychosocial issues from 2 sources. First, as noted, we reviewed the growing literature regarding end-of-life concerns associated with patient requests for euthanasia or physician-assisted suicide. This review included studies of medical patients who had been surveyed about their attitudes toward these practices (21,22), as well as studies of physicians in the Netherlands who had participated in them (23). The specific items included sense of personal control (defined as being able to tolerate one's situation and cope adequately), sense of dignity, perception of being a burden to others, hopelessness, and desire for death (15). Second, we drew information from studies and reviews of mental disorders in primary care (24) or palliative care populations (15,25–27). It was evident from this literature that anxiety and depressive disorders are among the most prevalent mental health problems in the palliative care setting. We believed that including items addressing subjective anxiety, depressed mood, and loss of interest or pleasure in activities would allow us to use the interview to screen for the central criterion symptoms of several common anxiety and depressive disorders described in the DSM-IV (28).

### *Item Construction*

Several clinical and psychometric considerations guided item construction. First, it was important that the interview be compatible with actual bedside practice, which required that questions flow naturally, as in a clinical interview. Second, each item was intended to capture the range of severity typically associated with the underlying symptom or concern. This

meant that the interviewer might probe each issue to clarify the respondent's experience and make severity ratings—an approach similar to that employed in the Schedule for Affective Disorders and Schizophrenia (13), a widely used structured interview for mental disorders. Third, the ratings for all items incorporated a common set of verbal descriptors drawn from the Memorial Pain Assessment Card: 0 = none, 1 = minimal, 2 = mild, 3 = moderate, 4 = strong, 5 = severe, and 6 = extreme (29). This is a familiar format for palliative care clinicians and results in a 7-point ordinal scale. Fourth, discrete content or functional referents were written for every scale point on each item; these were intended to maximize both the reliability and clinical meaningfulness of each point. A rating of 1 or 2 indicates that, although the respondent experiences the symptom or concern in question, it is at a relatively low level of severity. These ratings indicate either a minor problem or one that is well controlled and which the respondent does not currently regard as a significant source of distress. A rating of 3 corresponds to an issue that is “generally a significant problem.” This rating is intended to provide an important clinical anchor in that it represents a severity threshold describing an ongoing source of perceived difficulty. If an intervention is available to help the problem, it will be most applicable to patients with ratings of 3 or above. The higher scores are associated with the clear presence of a symptom or concern at a clinically important level with varying degrees of severity.

Finally, we constructed the severity thresholds for the mental health screening questions so that they could be related directly to the DSM-IV criteria for the diagnosis of anxiety and depressive disorders. This process resulted in a 13-item Structured Interview for Symptoms and Concerns (SISC). The next step in refining the measure was to circulate the items in draft form to palliative care physicians and nurses and to solicit their comments about item content, wording, and scaling. An early version was also pilot-tested with a group of 10 participants who were inpatients at a palliative care unit. After revision based on this feedback, we considered the interview ready for use. Table 1 shows examples of representative items.

#### *Participants and Procedure*

The survey procedures were approved by the research ethics committees of all institutions involved, and each participant signed an acknowledgement of informed consent.

The study recruited 70 participants, all of whom were receiving palliative care for advanced cancer. However, 1 participant did not complete all aspects of the protocol, including the SISC, which resulted in a group of 69 participants for the validation study. Forty-six participants (66.7%) were inpatients at a regional palliative care unit, and 23 (33.3%) were patients in

the oncology services of an acute care hospital who received palliative care consultations during their admissions.

Whenever possible, participants completed 2 interviews separated by 1 to 3 days. The interviews were administered by a clinical psychologist, by doctoral students in psychology, or by research associates in palliative care. The first interview was attended by both a primary interviewer and an observer; these individuals made independent ratings that were used to determine interrater reliability.

The initial interview involved an extended protocol that took an average of 63.8 minutes to complete (range 25 to 145 minutes); it was broken into shorter sessions when necessary. It comprised an introduction to the study, the signing of the consent forms, a review of demographic information, an attitude survey, administration of the SISC, and a debriefing. Along with each SISC item, participants also completed a 10-cm VAS addressing the same symptom or concern. When responding to specific SISC and VAS items, participants were asked to answer with respect to their experience “over the past day.” To conform to DSM-IV standards, longer time frames were also reviewed to assess specific core criterion symptoms of anxiety and depressive disorders, that is, anxiety, depression, and loss of interest or pleasure in activities. Whenever a participant reported one of these symptoms at a severity level and duration sufficient to indicate the presence of a specific anxiety or depressive disorder, we used the evaluation guide of the Primary Care Evaluation of Mental Disorders (PRIME-MD) (24) to probe additional criteria. The PRIME-MD is a brief diagnostic assessment tool that has been validated for use in primary care and is well-suited to the palliative care setting.

An independent interviewer with no knowledge of the participant scores from the first session conducted the second assessment. To determine the test–retest reliability of the items, only the SISC items and corresponding VAS measures were administered at this interview. A relatively short retest interval was used because patient situations can quickly change in palliative care. The second interview took an average of 28.6 minutes (range 10 to 60 minutes).

#### *Statistical Analysis*

We used intraclass correlations between the ratings of the primary interviewer and the observer to examine the interrater reliabilities of the SISC items (30). We used Pearson product–moment correlations to review the test–retest reliabilities of the SISC items as well as those of the VAS measures. Product–moment correlations between the SISC items and the VAS measures of the same constructs were used as indices of concurrent validity. To probe the sensitivity of the SISC to individual differences, we conducted exploratory analyses that compared the scores of selected subgroups of participants

**Table 1 Sample items from the Structured Interview for Symptoms and Concerns**

Symptom or concern	Rating
<b>Pain</b>	0 No pain
Do you have any pain? (How bad does it get?)	1 Minimal, for example, occasional but infrequent pain-related discomfort or background pain at a very low level; does not interfere with activities; not regarded as a particular problem
(Does it interfere with activities you would like to do?)	2 Mild, for example, sometimes a low level of pain-related discomfort; may on occasion interfere with some activities; generally controlled with medication; occasionally regarded as a minor problem
(Does it come and go, or does it feel that way most of the time?)	3 Moderate, for example, definite periods of pain-related discomfort; interferes with some activities; helped but not always completely controlled with medication; generally regarded as a significant problem
(Is it a problem for you?)	4 Strong, for example, regular pain-related discomfort, sometimes quite severe; interferes with many activities; helped but not well-controlled with medication; regarded as a prominent and ongoing problem
(How much does it bother you?)	5 Severe, for example, pain almost always present and often severe; interferes with almost all activities; medication provides little relief; regarded as a troubling and serious ongoing problem
(Does medication help?)	6 Extreme, for example, constant and severe pain; interferes with all activities; medication provides minimal relief; regarded as a pervasive, consuming, and constant problem
<b>Sense of burden</b>	0 No sense of burden
With your current illness, do you feel that you have become a physical or emotional burden for your family?	1 Minimal, for example, occasionally feels like a burden to others; not regarded as a particular problem
(Do you think your illness makes things hard for other people?)	2 Mild, for example, sometimes experiences low-grade sense of being a burden to others; occasionally regarded as a minor problem
(How strongly do you feel that way?)	3 Moderate, for example, definite concerns about being a burden to others; quite worried about their welfare; generally regarded as a significant problem
(Does it come and go, or do you feel that way most of the time?)	4 Strong, for example, most of the time has a definite sense of being a heavy burden to others; very concerned about their welfare; regarded as a prominent and ongoing problem
(Is it a problem for you?)	5 Severe, for example, sense of being a burden to others is almost always present; deeply worried about the health and welfare of family members; regarded as a troubling, serious, and ongoing problem
(How much does it bother you?)	6 Extreme, for example, sense of being a burden to others is virtually constant and always on one's mind; pervasive sense of being a heavy burden; extremely concerned about being the cause of deterioration in the health or welfare of loved ones; regarded as a pervasive, consuming, and constant problem
<b>Anxiety</b>	0 No anxiety
Have you been feeling nervous, tense or anxious?	1 Minimal, for example, only occasionally has feelings of anxiety at a low level; not regarded as a particular problem
(How bad does it get?)	2 Mild, for example, sometimes feels somewhat nervous or anxious, but not excessively and not most of the time; occasionally regarded as a minor problem
(Does it come and go, or do you feel that way most of the time?)	3 Moderate, for example, definite periods of uncomfortable anxiety; most of the time feels at least somewhat nervous or anxious; generally regarded as a significant problem
(Is it a problem for you?)	4 Strong, for example, most of the time feels uncomfortably anxious; anxiety is regarded as a prominent and ongoing problem
(How much does it bother you?)	5 Severe, for example, almost all of the time feels very anxious; regarded as a troubling, serious, and ongoing problem
	6 Extreme, for example, constant, unrelieved feelings of severe anxiety; regarded as a pervasive, consuming, and constant problem

who did or did not meet diagnostic criteria for anxiety or depressive disorders, using *t* tests for independent groups.

Although most SISC items were positively skewed (indicating a higher frequency of low scores), the results of the statistical tests were comparable when either parametric or nonparametric analyses were used. Therefore, we report the parametric tests.

## Results

### Participant Characteristics

The study group comprised 31 men and 38 women (mean age 64.5 years, SD 12.2 years). The sites of the primary

malignancies were varied and included the lung (*n* = 14; 20.3%), the genitourinary (*n* = 13; 18.8%) or gastrointestinal systems (*n* = 9; 13.0%), the female breast (*n* = 9; 13.0%), the head and neck (*n* = 7; 10.1%), and other sites (*n* = 11; 15.9%). For the remaining 6 participants (8.7%), the primary malignancy site was unknown. The median survival duration of the study group was 46 days (range 1 day to more than 6 months).

VAS measures were available for only 68 participants at the first interview because 1 individual had a visual impairment that precluded completing the scales. In addition, second interviews were available for only 46 participants: for the rest, an interview could not be scheduled within the prescribed

**Table 2 Percentages of participants reporting symptoms and concerns at different levels of severity ( $n = 69$ )**

Symptom or concern	Severity level							Ratings	
	None	Minimal	Mild	Moderate	Strong	Severe	Extreme	> 0 <sup>a</sup>	≥ 3 <sup>b</sup>
Pain	21.7	18.8	21.7	18.8	13.0	5.8	0.0	78.3	37.6
Drowsiness	10.1	29.0	18.8	14.5	14.5	11.6	1.4	89.9	42.0
Nausea	53.6	21.7	7.2	4.3	10.1	1.4	1.4	46.4	17.2
Weakness	7.2	7.2	15.9	36.2	14.5	13.0	5.8	92.8	69.5
Dyspnea	44.9	7.2	11.6	18.8	10.1	5.8	1.4	55.1	36.1
Loss of control	50.7	11.6	14.5	11.6	1.4	7.2	2.9	49.3	23.1
Loss of dignity	59.4	20.3	11.6	2.9	1.4	0.0	4.3	40.6	8.6
Sense of burden	23.2	21.7	17.4	20.3	10.1	5.8	1.4	76.8	37.6
Anxiety	37.7	37.7	11.6	8.7	2.9	1.4	0.0	62.3	13.0
Depression	34.8	43.5	13.0	4.3	2.9	1.4	0.0	65.2	8.6
Loss of interest	52.2	20.3	10.1	5.8	4.3	2.9	4.3	47.8	17.3
Hopelessness	52.2	29.0	8.7	2.9	2.9	1.4	2.9	47.8	10.1
Desire for death	55.1	21.7	4.3	10.1	2.9	2.9	2.9	44.9	18.8

<sup>a</sup>The percentage of patients who received a rating > 0 for the item, that is, who had the symptom or concern at some level as opposed to those who did not have it.

<sup>b</sup>The percentage of patients who received a rating ≥ 3 for the item, that is, who had a rating reflecting a significant problem.

time frame ( $n = 12$ ), the participant declined to take part in a follow-up ( $n = 7$ ), or the participant died or deteriorated medically ( $n = 4$ ). Of the participants who took part in the second interview, 3 completed the SISC but declined or were unable to fill out the VAS assessment.

#### Prevalence of Symptoms and Concerns

Table 2 shows the prevalence of individual symptoms and concerns and their associated severity. In general, all 13 symptoms and concerns occurred frequently within the study group. Prevalence rates ranged from 40.6% of respondents who acknowledged at least some sense of loss of dignity to 92.8% who felt some degree of weakness. These problems were not necessarily severe, however. For example, only 8.6% of respondents reported struggling with loss of dignity or with a pervasively depressed mood at levels above the threshold defining these issues as currently distressing problems. Nevertheless, some issues were rated as significant ongoing concerns for more than one-third of the participants; these included weakness, drowsiness, sense of being a burden, pain, and dyspnea.

#### Reliability and Correlation With Visual Analog Scales

Table 3 shows the interrater reliability for each of the SISC items. The reliability of all items was excellent: intraclass correlations exceeded 0.90 in each case. Table 3 also shows the correlations obtained between each interviewer-based SISC rating and the corresponding VAS score completed by the participants themselves. The SISC items generally had good concordance with their VAS counterparts, with correlations ranging from  $r = 0.71$  to  $r = 0.90$  (all significant at  $P < 0.001$ ).

Both the SISC items and the VAS measures showed moderate temporal stability over the 1- to 3-day follow-up interval. For the SISC items, retest reliability coefficients ranged from  $r = 0.50$  to  $r = 0.90$ , whereas the VAS coefficients ranged from  $r = 0.42$  to  $r = 0.91$ . All the test-retest coefficients were statistically significant for both methods ( $P < 0.006$ ). Further, comparisons of the reliability coefficients across methods based on Fisher's  $z$  transformations showed that the SISC items and VAS measures had equivalent stability over time.

#### Prevalence of Anxiety and Depressive Disorders

The SISC items assessing anxiety, depression, and loss of interest in activities served as screening questions for specific anxiety and depressive disorders. Table 4 shows the prevalence of these disorders. Overall, 16 participants (23.2%) met criteria for any anxiety or depressive disorder, with considerable comorbidity across the 2 categories (that is, 5 of the 7 patients with an anxiety disorder also had a comorbid depression diagnosis). Of the 14 participants (20.3%) given a diagnosis of a depressive disorder, 8 had major depression, which represents a prevalence of 11.6% within the group as a whole.

To probe the SISC items' sensitivity to individual differences, we conducted a series of exploratory analyses that compared subgroups of participants who either did ( $n = 16$ ) or did not ( $n = 53$ ) meet DSM-IV diagnostic criteria for any anxiety or depressive disorder. Table 5 summarizes the results. These analyses revealed that participants diagnosed with a mental disorder differed from the other respondents in acknowledging more severe problems on 10 of the 13 interview items, including the physical symptoms of drowsiness ( $P = 0.01$ ) and weakness ( $P = 0.02$ ), as well as all psychosocial and mental health concerns (all  $P < 0.03$ ). The VAS measures showed the

Symptom or concern	Mean values		Correlations		Test-retest	
	SISC	VAS	SISC interrater	SISC and VAS	SISC	VAS
Pain	1.91	3.29	0.97**	0.88**	0.54**	0.60**
Drowsiness	2.54	4.91	0.93**	0.77**	0.52**	0.57**
Nausea	1.15	1.71	0.99**	0.90**	0.50**	0.42*
Weakness	3.37	5.62	0.95**	0.71**	0.57**	0.49*
Dyspnea	1.96	3.89	0.95**	0.89**	0.71**	0.61**
Loss of control	1.50	3.18	0.97**	0.90**	0.61**	0.64**
Loss of dignity	0.98	2.71	0.98**	0.74**	0.57**	0.73**
Sense of burden	2.04	4.09	0.92**	0.85**	0.55**	0.73**
Anxiety	1.07	2.42	0.96**	0.78**	0.56**	0.58**
Depression	1.02	2.36	0.98**	0.78**	0.70**	0.70**
Loss of interest	1.35	2.81	0.97**	0.72**	0.73**	0.70**
Hopelessness	0.89	2.18	0.98**	0.83**	0.80**	0.73**
Desire for death	1.13	2.69	0.99**	0.88**	0.90**	0.91**

SISC = Structured Interview for Symptoms and Concerns; VAS = Visual Analog Scale  
 \*Correlations that are statistically significant at  $P < 0.05$ ; \*\*Significant at  $P < 0.001$ .

Diagnosis	n	%
Major depression	8	12
Major depression in partial remission	5	7
Minor depression	1	1
Dysthymia <sup>a</sup>	2	3
Any depressive disorder	14	20
Panic disorder	1	1
Generalized anxiety disorder	2	3
Anxiety disorder not otherwise specified	3	4
Anxiety disorder secondary to a general medical condition	2	3
Any anxiety disorder	7	10
Any diagnosis	16	23
More than 1 diagnosis	6	9

<sup>a</sup> The 2 patients diagnosed with dysthymia also met criteria for another depressive disorder. One patient was also diagnosed with 2 different anxiety disorders.

same pattern, with the exception that the specific symptom of weakness did not differ significantly between the groups ( $P > 0.10$ )

#### Participant Preference

As part of the debriefing procedure concluding the interview, participants were asked whether they preferred to report symptoms and concerns using the structured interview or the

VAS method. We found that 47% considered both methods to be equally acceptable, whereas 31% preferred the interview, and 22% preferred the VAS approach.

#### Discussion

The SISC was developed as a first-generation structured interview for assessing common symptoms and concerns of patients approaching the end of life. The interview is similar to a bedside clinical assessment and does not require that the patient be able to read or follow complex instructions. However, people who are interviewed must be mentally competent and able to reflect on their circumstances, which does restrict its applicability in palliative care. In addition, the typical, unhurried administration of an interview covering all relevant areas takes at least 10 minutes and can range up to an hour.

We selected the 13 items comprising this initial version of the SISC because they represent physical symptoms that are highly prevalent in the palliative care setting or because they reflect important end-of-life concerns related to the maintenance of dignity and emotional and social well-being. These are central considerations in the practice of palliative care. Nevertheless, it must be acknowledged that many different problems can arise in terminally ill individuals, with implications for their quality of life. In this study, we strove to balance a comprehensive but long interview with one that was shorter but restricted in content. Therefore, the items do not completely cover all possible symptoms and concerns; however, the assessment format can easily be extended to cover other problems. In ongoing research (31), we have expanded the interview to be compatible with other conceptualizations of quality of life in the context of palliative care (32).

**Table 5 Mean SISC ratings and VAS scores for participants diagnosed with ( $n = 16$ ) or without ( $n = 53$ ) a depressive or anxiety disorder**

Symptom or concern	With a disorder				Without a disorder			
	SISC		VAS		SISC		VAS	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Pain	1.87	1.41	3.07	2.40	2.04	1.57	3.43	2.90
Drowsiness <sup>a</sup>	3.25	1.57	6.47	2.33	2.08	1.54	3.91	2.76
Nausea	0.88	1.31	1.40	1.80	1.11	1.59	1.87	2.47
Weakness <sup>b</sup>	3.81	1.33	5.93	2.69	2.83	1.52	4.89	2.78
Dyspnea	1.81	2.01	3.60	3.25	1.60	1.71	3.32	3.45
Loss of control <sup>a</sup>	2.81	1.94	5.60	3.04	0.91	1.43	2.06	2.63
Loss of dignity <sup>a</sup>	1.81	2.01	5.00	3.51	0.55	1.07	1.64	2.51
Sense of burden <sup>a</sup>	2.94	1.84	6.13	3.00	1.66	1.40	3.26	2.79
Anxiety <sup>a</sup>	1.94	1.61	3.93	2.84	0.79	0.84	1.98	2.12
Depression <sup>a</sup>	2.25	1.29	4.47	2.42	0.64	0.65	1.72	1.66
Loss of Interest <sup>a</sup>	3.13	2.28	5.93	2.96	0.57	0.80	1.68	2.21
Hopelessness <sup>a</sup>	2.50	1.90	5.13	2.77	0.43	0.72	1.30	1.81
Desire for death	2.81	2.01	6.13	3.46	0.51	0.91	1.36	2.30

SISC = Structured Interview for Symptoms and Concerns; VAS = Visual Analog Scale  
<sup>a</sup>SISC ratings and VAS scores both differ between groups at  $P < 0.05$ ; <sup>b</sup>Only interviewer SISC ratings differ between groups at  $P < 0.05$ .

The psychometric characteristics of the structured interview items indicate that they have excellent interrater reliability, show good concordance with respondent VAS measures of the same constructs, are sensitive to individual differences, and are regarded by participants as being at least as acceptable as the VAS method. For the most part, the SISC items exhibit moderate temporal stability that is similar to VAS measures. However, it is noteworthy that, whereas the patient completed the VAS measures on both occasions, a different individual, who was unaware of the previous interview results, completed the second SISC assessment. This suggests that little of the variability in SISC scores is attributable to interrater differences and that the moderate temporal stability shown by both the SISC and VAS items reflects variability inherent in the underlying constructs or other sources of error (33,34).

The SISC assessment format offers several advantages over the VAS measures. First, the scale ratings were constructed to be clinically relevant: the verbal labels and functional descriptors offer an intuitively meaningful way of understanding and communicating information about symptoms. In this way, patients who may have a symptom or concern at a minimal and nondistressing level can be distinguished from those for whom a symptom is a more pervasive issue requiring further review and intervention, if possible.

A second advantage of the SISC format is that the mental health item ratings can serve as initial screens for specific anxiety and depressive disorders. We found that 23% of the participants fulfilled diagnostic criteria for at least 1 of these disorders, which is within the range of prevalence estimates

reported by other investigators (15,25–27). We also found a high degree of comorbidity between anxiety and depressive disorders. The diagnoses were of varying severity, but the most common problem was major depression.

In the primary care setting, mental disorders are associated with a substantial decline in health-related quality of life (33). This appears to be true of palliative care as well. In the present study, participants diagnosed with a mental disorder also experienced more severe physical symptoms in some areas. Further, they perceived themselves to be less in control of their circumstances, more burdensome to their families, and engaged in a greater struggle for the preservation of dignity. They also expressed a greater desire for death. Clearly, the emergence of mental disorders introduces a significant source of suffering at the end of life, and recommendations for routine screening with simple measures are well founded (12,35). The structured interview approach is particularly well suited to this purpose, although the core screening items must be supplemented with additional measures to review all relevant criteria for the disorders in question.

In summary, the structured interview approach provides a reliable and valid assessment that incorporates clinically relevant and intuitively meaningful rating scales. It offers a structured format for conducting an interview into some of the most common symptoms and concerns arising at the end of life and may be more generally applicable for palliative care research.

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**Résumé : Entrevue structurée d'évaluation des symptômes et préoccupations des soins palliatifs**

**Objectif :** L'évaluation des soins palliatifs exige un examen multidimensionnel des symptômes physiques et des préoccupations psychosociales dans un format approprié pour les patients dont la maladie est très avancée. Dans cette étude, nous décrivons l'élaboration initiale et la validation d'une entrevue structurée visant à évaluer les préoccupations et symptômes communs auxquels font face les personnes en phase terminale.

**Méthode :** Nous avons élaboré une entrevue structurée des symptômes et préoccupations (SISC) en 13 questions, d'après un examen des enjeux de fin de vie, et l'avons administrée à 69 patients recevant des soins palliatifs pour un cancer avancé. En plus de cette entrevue, chaque participant remplissait des échelles analogiques visuelles (EAV) qui abordaient les mêmes concepts. La fiabilité de test-retest et la fiabilité entre évaluateurs ont été déterminées, tout comme la concordance entre les cotes de l'entrevue et les scores aux EAV.

**Résultats :** En général, les questions de l'entrevue avaient une excellente fiabilité entre évaluateurs (corrélations intraclass  $> 0,90$ ) et une stabilité temporelle au moins modérée (corrélations test-retest allant de 0,50 à 0,90). La validité concurrente était évidente dans la bonne concordance entre les questions de l'entrevue et les mesures des EAV (corrélations  $> 0,70$ ). La SISC était aussi sensible aux différences individuelles entre les sous-groupes de participants qui satisfaisaient ou pas aux critères diagnostiques des troubles anxieux ou dépressifs.

**Conclusions :** Cette étude démontre que les entrevues structurées fournissent une approche fiable et valide à l'évaluation des soins palliatifs et qu'elles peuvent constituer une solution de rechange pour certaines applications de la recherche.