

Recognizing Depression in Palliative Care Patients

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ABSTRACT

Clinically significant depression is a common psychiatric disorder in patients with advanced and terminal diseases. Depression is often unrecognized and untreated and it causes major suffering to patients and families. Having adequate knowledge and skills to properly recognize depression in patients with advanced illnesses is essential for providing comprehensive end-of-life care. The objective of this paper is to review the key elements of the assessment of depression in palliative care patients. We also discuss the challenges of making the diagnosis, review the risk factors associated with depression and describe the features of the most common assessment tools that have been studied in this population. Finally, we highlight how to differentiate depression from normal grief, as the overlap between these conditions imposes a diagnostic challenge.

INTRODUCTION

DEPRESSION is a frequently encountered psychiatric disorder in terminally ill patients.¹ Although studies on the prevalence of depression in patients with advanced and life threatening conditions vary in sample size, settings, and diagnostic criteria, clinically significant depression affects up to 75% of these patients.² The consequences of untreated depression can be devastating. Depression can significantly impact the quality of life of a dying patient by taking away hope, sense of peace and meaning. It impairs patients' ability to interact with family and loved ones and it affects one's capacity to organize financial and practical affairs at the end of life.³ Depression is known to be associated with increased requests for physicians to hasten death in terminally ill patients⁴ and it represents a major risk factor for suicide in this population.⁵ Moreover, untreated depression amplifies and makes it more difficult to treat pain and other symptoms.¹

Depression is frequently unrecognized and untreated in patients with advanced cancer due to several reasons.⁶ Patients may be reluctant to report depressive symptoms to medical personnel, as they may believe that it is a sign of weakness. Hinton⁷ demonstrated that 11% of patients in the final weeks of life completely concealed their feelings from others while a further 35% were reticent about self-disclosure. Cultural beliefs may also play a role in patients' reluctance to report on their own feelings to medical staff. It may be unacceptable for patients to be depressed. Other difficulties in diagnosis come from medical providers. Some clinicians believe that psychological distress is a completely normal reaction to the patient's terminal disease. Providers may find it difficult to explore psychological experiences with their patients because of time constraints or fear that such exploration might get patients upset.⁶ Moreover, many clinicians reported difficulty in differentiating depression from normal grief.² Concerns about cost, side effects, and drug

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interactions may be contributors to the low treatment rates of depression in palliative care settings.⁸

Having a good understanding of the factors associated with depression in patients with advanced diseases is paramount in the recognition of this condition. Greer and Silberfarb⁹ believed that the emotional impact of a cancer diagnosis, side effects of treatment, symptoms and disability associated with cancer progression, and cerebral dysfunction from carcinomatosis were all important factors. Goldberg and Cullen¹⁰ suggested that disruption of key relationships, dependence, disability, disfigurement and approaching death were psychological factors leading to significant depressive symptoms. Table 1 summarizes the main factors identified with depression. A number of studies found that a prior history of depression, poor social support, physical disability, chronic unrelieved pain and existential concerns were all associated with depression.⁸ Depressive symptoms may also be associated with certain types of tumors such as pancreatic cancer and tu-

mors affecting the central nervous system. Metabolic abnormalities related to cancer, certain drugs, and radiotherapy are also risk factors for depression.^{8,11} While young age is a risk factor for depression among cancer patients, the data on female gender being a risk factor for depression among cancer patients is controversial.^{8,11} Although some studies found higher levels of depressive symptoms among females with cancer including those at an advanced stage, other studies have found the opposite.

PATIENT ASSESSMENT

The initial assessment includes a comprehensive review of possible factors associated with depression (Table 1) and a thorough medical history and physical examination if considered appropriate by the provider.¹ In addition it is important to assess patient's cognitive capacity as cognitive loss is common in elderly patients with advanced diseases and it represents an important risk factor for depression.¹² It is also useful to observe patient's body language and social behaviors. Tearfulness, downcast eyes, stooped posture, quietness and isolation may be markers of depression.¹³ Providers need to be aware of their own emotional responses to patients. If a patient makes the provider feel sad or depressed, this is a good indicator that patient might be depressed.¹⁴ Information about patient's social network, relationships, family support, living situation, financial resources is important to obtain.¹¹ Laboratory and other diagnostic testing can be indicated if an organic cause of depression is suspected.¹

The structured clinical interview using the *Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV)* remains the gold standard for the diagnosis of depression.¹¹ The DSM-IV is widely accepted as a diagnostic tool for depression and it has been demonstrated as having an excellent inter-rater reliability and validity when utilized by trained clinicians.³ The DSM-IV criteria for major depression (Table 2) requires at least five of the listed symptoms for 2 weeks or more with at least one of the symptoms being either depression or anhedonia, or both.¹⁵ One of the limitations of the DSM-IV criteria in palliative care settings is that it involves inclusion of somatic symptoms that can sometimes be a result of the underlying terminal disease and/or comorbidities

TABLE 1. RISK FACTORS FOR DEPRESSION IN PALLIATIVE CARE PATIENTS

Having a terminal diagnosis
Certain types of cancer: pancreatic cancer, brain tumors
Comorbidities: hypothyroidism, coronary artery disease, macular degeneration, diabetes mellitus, Alzheimer's disease, Parkinson's disease, multiple sclerosis, stroke, Huntington's disease
Physical disability
Poor pain and symptom control
Metabolic abnormalities: hypercalcemia, tumor generated toxins, uremia, abnormal liver function
Medications: amphotericin, centrally acting antihypertensive agents, H2-blockers, metoclopramide, cytotoxic drugs, corticosteroids, interferon, interleukin
Radiation therapy
Malnutrition
Cognitive loss
Previous personal history of depression
Family history of depression
Age of the patient, more common in younger patients
Request to withhold or withdraw treatment
Requests for assisted suicide
Substance abuse
Poor social support
Lack of close confiding relationships
Financial strains

Source: Wilson KG, Chochinov HM, de Faye BJ, Breitbart W: Diagnosis and management of depression in palliative care. In: Chochinov HM, Breitbart W (eds): *Handbook of Psychiatry in Palliative Medicine*. Oxford University Press, 2000, pp. 25-49.

TABLE 2. DSM-IV CRITERIA FOR MAJOR DEPRESSION

Five or more of the following symptoms with at least one symptom being either depressed mood or anhedonia:

- Persistent low or depressed mood
- Anhedonia
- Significant weight loss or gain
- Insomnia or hypersomnia
- Psychomotor agitation or retardation
- Fatigue or loss of energy nearly every day
- Feelings or loss of energy nearly every day
- Diminished ability to think or concentrate or indecisiveness nearly every day
- Recurrent thought of death (not just fear of dying, recurrent suicidal ideation)

Source: Major Depressive Episode. In: *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*. Washington, D.C.: American Psychiatric Association, pp. 349–356.

ties rather than a consequence of true depression. To address this limitation, Endicott¹³ suggested substituting the somatic symptoms of the *DSM-IV* criteria for cognitive symptoms, for example, weight loss (or gain) and changes in appetite is replaced by depressed appearance and tearfulness, and insomnia (or hypersomnia) is replaced by social withdrawal (Table 3). The proposed substitutions by Endicott were further studied by Chochinov.¹⁶ He assessed the prevalence rates of depression using Endicott's substitutive criteria and compared it to the standard structured clinical interview. He found that the inclusion of somatic symptoms in the diagnostic criteria did not affect the identification of more severe presentations of depression. On the other hand, patients with less severe presentations were more likely to be diagnosed as depressed when an inclusive rather than a substitutive approach was used.¹⁶

Another limitation related to the utilization of the structured clinical interview in palliative care settings is that providers may not have the necessary skills or the time to perform such extensive testing on all their patients. In addition, patients may not be able to undergo extensive questioning and evaluation due to their poor health status.

Due to the difficulties related to the utilization of structured clinical interviews in palliative care populations, several investigators have proposed other screening approaches such as the self-report measures. Several easy to use self-report instruments designed to detect depression in the general population have been tested in palliative care patients. Research studies on the effectiveness of these tools in the palliative population vary in settings, sample size and methods, which makes it difficult to interpret and compare the results. Table 4 provides an overview of the most recent studies on self-report measures tested in palliative and hospice patients. Most of these tools were validated for palliative care patients based on their concordance with the structured clinical interview. Scores and cutoff thresholds to diagnose depression have been determined for each particular tool. The majority of scales utilize psychological symptoms rather than physical symptoms of depression, as they often can be caused by cancer or other co-morbidities.

The Hospital Anxiety and Depression Scale (HADS), which has been originally developed for screening depression and anxiety in the general medical population, has been validated for palliative care patients and it is commonly used in this population.¹⁷ The HADS consists of 14 questions in two subscales (anxiety and depression), it focuses more on cognitive symptoms rather

TABLE 3. DSM-IV SYMPTOMS OF MAJOR DEPRESSION AND SUBSTITUTIONS PROPOSED BY ENDICOTT

<i>DSM-IV criteria</i>	<i>Endicott's substitutive criteria</i>
Poor appetite or changes in weight	Tearfulness or depressed appearance
Loss of energy and fatigue or Psychomotor retardation or agitation	Brooding, self-pity, pessimism
Insomnia or hypersomnia	Social withdrawal
Feeling of worthlessness or excessive guilty or diminished ability to think or to concentrate	Lack of reactivity, cannot be cheered up

Source: Endicott J: Measurement of depression in patients with cancer. *Cancer* 1984;53:2243–2248.

TABLE 4. SELF-ASSESSMENT TOOLS FOR DEPRESSION IN PALLIATIVE CARE PATIENTS

Assessment tool	Study	Population (number of patients, setting)	Sensitivity	Specificity	Number of items	Inclusion of somatic symptoms
Hospital Anxiety Depression Scale (HADS)					14	Yes
Cutoff of 20	Le Fevre, 1999	79 Inpatient hospice	0.77	0.85		
Cutoff of 19	Lloyd-Williams, 2001	100 Inpatient palliative	0.68	0.67		
Single Item: "Are you depressed?"					1	No
	Chochinov, 1997	197 Inpatient terminal cancer	1.00	1.00		
	Lloyd-Williams, 2004	74 Outpatient palliative	0.55	0.74		
	Robinson, 2005	69 Outpatient palliative 20 Inpatient hospice	0.72 0.62	0.75 0.89		
Two items: "Are you depressed?" "Have you lost interest in activities?"					2	No
	Chochinov, 1997	197 Inpatient terminal cancer	1.00	0.98		
	Robinson, 2005	69 Outpatient palliative 20 Inpatient hospice	0.86 1.00	0.65 0.78		
Visual Analogue Scale (100-mm line)					1	No
	Chochinov, 1997	197 Inpatient terminal cancer	0.72	0.50		
	Lees N, 1999	25 Inpatient terminal cancer	–	–		
Edinburgh Postnatal Depression Scale					10	No
	Lloyd-Williams, 2000	100 Inpatient palliative	0.81	0.79		
	Lloyd-Williams, 2004	74 Outpatient palliative	0.70	0.80		
Mood Evaluation Questionnaire					33	No
	Meyer, 2003	45 Inpatient advanced	–	–		
Beck Depression Inventory-Short Form					13	Yes
	Chochinov, 1997	197 Inpatient terminal cancer	0.79	0.71		

than somatic symptoms, and it is easy to administer. Each question scores 0–3 points, with a maximum possible score of 42. Studies demonstrated that the HADS has better sensitivity and specificity for detecting depression when a cutoff score of 20 is utilized.^{18,19}

In 1997, Chochinov et al.²⁰ found that the single item screening question, "Are you depressed?" had sensitivity, specificity, and positive predictive value of 1.0 when utilized to detect depression among patients with advanced cancer receiving palliative care. Expanding the measure to two questions, "Are you depressed" and "Have you lost interest in activities?" resulted in misclassification of 2% of nondepressed patients. In 2004, Lloyd-Williams²¹ found lower sensitivities and specificities when the single or the two item questionnaires were used to detect depression.

The Visual Analogue Scale (VAS) for Depression has been proposed as a screening tool for de-

pression in palliative patients. In 1997 Chochinov et al.²⁰ described the utilization of a 100-mm VAS of depressed mood (anchored at the end points with the descriptors 0 = "worst possible mood" and 1 = "best possible mood") as a brief screening tool for depression in inpatients with terminal cancer receiving palliative care. They compared the performance of a VAS, the Beck Depression Inventory-Short Form (BDI-SF), the single-item and the two-item interview that were described above. The BDI-SF was developed as a rapid screening tool for diagnosing depression in medical patients.²² It is a 13-item version of the standard 21-item Beck Depression Inventory. In this study, Chochinov found that the cutoff score of 55 mm or less on the VAS provided less accurate screening than the BDI-SF. In 1999, Lees²³ piloted a 100-mm linear VAS (anchored at the end points with a sad face at one end and a happy face at the other end) in 25 patients admitted to a hospice. He found that the VAS correlated well

with both the depression subscale and total score of the HADS and it was quick and easy to complete by most patients.

In 2005, Robinson and Crawford²⁴ examined the clinical validity and acceptability of a 4-question algorithm for screening depression among patients receiving palliative care in an inpatient hospice or in the community. This algorithm included questions on energy level, anhedonia, depressive feelings and psychomotor agitation or retardation. This tool was compared to 3 reference standards: the symptom criteria for major depression in the *DSM-IV*, symptom criteria for moderate and severe depressive episode in the *International Statistical Classification of Diseases and Related Health Problems (ICD-10)* and the Psychogeriatric Assessment Scale for Depression. It showed clinical validity, generalizability, and construct validity in identifying patients who warranted follow-up for depression.

The Edinburgh Postnatal Depression Scale (EPDS) was developed originally to screen for depression in postpartum women²⁵ and it has also been tested in palliative care patients.²⁶ The EPDS is a 10-item scale with a 4-point rating scale for each item. The scale excludes the somatic symptoms of depression and it contains questions concerning guilt, helplessness/hopelessness, subjective low mood, and thoughts of self-harm. In 2000, Lloyd et al.²⁶ studied the EPDS in terminally ill patients and found that a cutoff threshold of 13 or higher had a sensitivity of 0.81 and a specificity of 0.79.

The Mood Evaluation Questionnaire (MEQ) is a 33-item assessment tool for depressive symptoms developed particularly for palliative care and rehabilitation populations.²⁷ It contains only psychological items such as suicidal thoughts, self-harm, and feelings of guilt. In 2003, Meyer et al.²⁸ studied the MEQ in patients with advanced cancer. They found that the MEQ had moderate agreement with the structured clinical interview for *DSM-III-R*. Questions about worthlessness, death and self-harm were strong predictors of current depressed mood. The MEQ also correlated high with the Geriatric Depression Scale in another study.²⁷

Other self-report measures of depression used in the general medical population such as the General Health Questionnaire (GHQ),²⁹ the Rotterdam Symptom Checklist (RSCL),²⁹ and the Zung-Self Rating Depression Scale (ZSDS)³⁰ have been studied in mixed cancer populations but not

exclusively the terminally ill. Ibbotson et al.²⁹ studied the GHQ, RSCL, and the HADS in 514 patients with cancer. They found that the HADS and the RSCL were more effective questionnaires at detecting significant depression and anxiety symptoms in a wide spectrum of cancer patients. The ZSDS is a 20-item scale that has been established as a reliable and valid instrument for measuring depression.³¹ In 1998, Dugan et al.³⁰ studied the feasibility, utility and reliability of this scale in a large sample of ambulatory cancer patients. They found that the ZSDS and the Brief-ZSDS, which is an 11-item version of the ZSDS, were highly correlated and had high levels of internal consistency. The authors suggested that the ZSDS and the Brief-ZSDS version were useful screening tools to identify depressive symptoms in patients with cancer.

DIFFERENTIATING GRIEF FROM DEPRESSION

Understanding grief in the terminally ill becomes imperative when assessing depression.^{2,32} Grief is the process of psychological, social and somatic reactions to the perception of loss. It involves continuing stages, which are expectable or normal.² It can be a reaction to many kinds of losses and not necessarily death alone. Grief in the terminal patient is anticipatory: associated with current and anticipated loss of health, loss of relationships and loss of patient's role in society. In addition, losing control behaviorally, socially, emotionally, and cognitively is an important contributing factor. It is important to recognize patients' ability to cope with grief, and provide them with support. The process allows patients to adjust to various changes in their lives.

Periyakoil and Hallenbeck² suggested key differences between grief and depression. Grief is often experienced in waves, which are triggered by specific losses that may be unpredictable sometimes. In contrast, depression is present with persistent flat affect. In addition, the intensity of grief will diminish over time although patients may have episodes of severity. Patients with grief normally have a preserved self-image. Patients may feel loss of self-esteem related to debility and dependency but this may be appropriate for the situation in some patients. Again, this should not persist, and will wane in time. Grieving patients are still able to feel pleasure. They will still look

forward to special occasions and interactions with family and friends. A patient who is experiencing grief will continue to maintain a sense of hope. For example, hope may be shifted from cure of disease to being kept comfortable. There may be social withdrawal but this is usually temporary. Persistent social withdrawal may indicate depression. Agitation may be present during early stages of grief but resolves over time. A persistent desire for hastened death or suicidal ideation indicates depression rather than grief.

The Terminally Ill Grief or Depression Scale (TIGDS), comprising of grief and depression subscales, is the first self-report measure designed and validated to differentiate between preparatory grief and depression in adult inpatients.³³ The validity of the TIGDS was tested by comparing with the HADS. The depression subscale showed strong convergent validity and the TIGDS grief subscale showed strong discriminant validity with the HADS total score. This tool was described as easy to administer and acceptable to patients. Although TIGDS has not been tested yet in other clinical settings and on larger samples, it may become a very a useful tool for clinicians to assess depression and grief in terminally ill patients.

SUMMARY

Depression is a common psychiatric disorder in palliative care patients which is frequently under-diagnosed and under-treated. All palliative care patients diagnosed with serious life-limiting illnesses should be assessed for grief and depression systematically and regularly with the frequency of assessment to be determined by patients expected life-span. Given the deleterious consequences of untreated depression in palliative care patients, it becomes imperative to recognize and manage this condition as early as possible. Proper recognition of depression involves the identification of possible risk factors and the utilization of assessment tools. Although studies validating these tools vary greatly, many of them have been shown to be effective in palliative care patients. The most common utilized tools in palliative care settings tend to omit somatic symptoms of depression as many of these symptoms overlap with the terminal disease process. An important consideration in diagnosing depression is preparatory grief, a condition that is experienced

by nearly all-palliative care patients. Appropriately treating depression and supporting grief may significantly augment the quality of life. Recognizing depression among palliative care patients is a necessary skill that any palliative care clinician must acquire in order to provide comprehensive end-of-life care.

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