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# Assessing anxiety and depression with respect to the quality of life in cancer inpatients receiving palliative care

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A B S T R A C T

*Purpose:* The study aimed at assessing the presence of anxiety and depression in cancer inpatients receiving palliative care at an oncology department using the Hospital Anxiety and Depression Scale (HADS) and determining whether anxiety and depression contribute to a lower quality of life controlled for pain and illness severity.
*Method:* This cross-sectional study comprised 225 advanced cancer inpatients (a mean age of 65.1 years). Data were collected with the HADS, EORTC QLQ-C30 and Karnofsky Performance Status scale.
*Results:* Anxiety (HADS-a ≥8) was found in 33.9% and depression (HADS-d ≥8) in 47.6% of patients. Higher anxiety scores were observed in patients living with a partner ($p = 0.042$) and non-religious patients ($p = 0.045$). Correlations were found between anxiety, depression and all quality of life dimensions ($r = 0.31–0.63$). Multiple regression analysis showed that anxiety and depression contribute to lower physical and emotional functioning. Patients with anxiety (HADS-a ≥8) and depression (HADS-d ≥8) reported a lower total quality of life ($p < 0.01$).
*Conclusion:* Management of anxiety and depression in cancer patients receiving palliative care may contribute to improvement in certain quality of life dimensions.



## Introduction

Depression is one of the most prevalent emotional disorders in cancer patients (Castelli et al., 2011). The presence of depression in patients with advanced cancer is reported to range from 3% to 69% (Delgado-Guay et al., 2009; Holtom and Barraclough, 2000; Hotopf et al., 2002; Smith et al., 2003). And Block (2000) states that depression is found in as many as 77% of terminal cancer patients.

The period of dying is often associated with fear and anxiety. Death anxiety may manifest itself as dread, panic, maladaptive behavior, poor coping mechanisms or somatic problems (Kissane and Patsy, 2003). In their systematic review, Hotopf et al. (2002) identify 15 studies using the Hospital Anxiety and Depression Scale (HADS) to assess depression in patients with terminal chronic disease; the presence of depression ranged from 14% to 66%. In the published studies of cancer patients, anxiety is usually more prevalent than depression (Delgado-Guay et al., 2009; Hotopf et al., 2002).

Both anxiety and depression are common in patients with pain and other burdensome symptoms, as they are in the terminal stage of the disease (Smith et al., 2003). Some authors claim that there is an association between physical symptoms and the presence of anxiety and depression (Delgado-Guay et al., 2009; Mystakidou et al., 2004; Smith et al., 2003). According to Teunissen et al. (2007), however, the relationship between anxiety, depression and physical symptoms in palliative care is limited. The authors found no correlation between these factors. Both anxiety and depression may be affected by information about the prognosis of the disease. Cripe et al. (2012) found that men who had full prognostic discussions had less depression but greater anxiety.

Underdetection and undertreatment of depression is a serious problem in palliative care (Stiefel et al., 2001). Depression related to the diagnosis of cancer and requiring therapeutic intervention is often underrecognized, underdiagnosed (Néron et al., 2007) and, subsequently, undertreated (Lloyd-Williams and Hughes, 2008). Castelli et al. (2011) draw attention to the fact that medical visits focus mainly on somatic aspects of the disease and depression is often considered a normal reaction to cancer. Raudenská and Javürková (2011) discuss difficulties in diagnosing depression in terminally ill patients, one of which is the common opinion of both

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patients and oncologists that sadness is a normal reaction to the process of dying. As a result, they fail to distinguish between natural or existential grief and clinical depression. Some physicians may avoid diagnosing mental problems, hoping to protect both their patients and themselves from extra burdens such as side effects of psycho-pharmacological medications. As the oncology nurse is the health-care team member most familiar with the patient (Hughes, 2006), they can play an important role in diagnosing anxiety and depression. They are the first to notice emotional/behavioral changes in the patient and bring them to the physician's attention (Hughes, 2006). McDonald et al. (1999) study the degree to which nurses recognize levels of depressive symptoms in their patients with cancer as compared with patient-rated depression. The most frequent agreement between nurses and patients is observed when patients report few or no depressive symptoms. A marked tendency exists to underestimate the level of depressive symptoms in patients who are more severely depressed. Therefore, more attention should be paid to diagnosing depression in cancer nursing, including the use of available measuring tools. With these instruments, nurses can identify patients with depression and cooperate in their treatment (Valente and Saunders, 1997). Frequently, oncology nurses care for patients with co-morbid psychiatric conditions and have an opportunity to recognize the symptoms and signs of depression and use relevant interventions. Cutcliffe et al. (2001) report certain commonality between mental health nurses and palliative care nurses, mainly because of their establishment of a therapeutic relationship with patients. Based on their meta-analysis, Singer et al. (2010) claim that although one-third of cancer patients in acute care suffer from mental disorders and need appropriate therapy, there is a lack of paid positions for mental health care professionals in acute cancer care in some countries; as a result, undertreatment occurs in 40%–90% of cases. The authors stress that psycho-social support should also be offered by oncology nurses.

Cancer patients' anxiety and depression adversely affect their quality of life (QoL) (Castelli et al., 2011; Mystakidou et al., 2004; Little et al., 2005; Saevarsdottir et al., 2006; Smith et al., 2003) and decision making and cause caregiver distress, increasing their risk of suicide (Castelli et al., 2011). Lloyd-Williams and Hughes (2008) point to the fact that anxiety is often associated with fear of illness and death, causing physical symptoms and leading to a vicious circle of thought processes that significantly impairs patients' QoL.

Although the impact of anxiety and depression on QoL has been confirmed repeatedly and the goal of palliative care is the achievement of the best possible QoL for patients and their families (Rec, 2003), little attention has been paid to these issues in oncology nursing research and practice (Little et al., 2005). Therefore, monitoring of patients' mental health is an integral part of the multidisciplinary care that is provided. Training of non-psychiatric staff should have the highest priority. A proactive, flexible and comprehensive strategy embracing clinical, scientific and educational aspects is advocated (Stiefel et al., 2001). Additionally, oncology nurses should be prepared to notice changes in patients' QoL and look for their causes (Saevarsdottir et al., 2006), including those stemming from mental health problems.

The objectives of the survey presented were: (1) to use the HADS to determine the presence of anxiety and depression in hospitalized patients in whom curative care has been discontinued; (2) to verify the reliability of a Czech version of the HADS; (3) to ascertain differences in the presence of anxiety and depression with respect to socio-demographic characteristics; (4) to ascertain the relationship between depression and anxiety, and age, health status, and various dimensions of QoL; and (5) to determine whether any such effect could be wholly attributable to the associations of depression with pain or severity of illness.

## Methods

### *Design*

Observational, cross-sectional study.

### *Population*

The study group comprised 225 patients of University Hospital, Ostrava in whom cancer therapy had been discontinued due to incurable progression of cancer. The patients were admitted to receive palliative care and treatment for their symptoms. The inclusion criteria were as follows: age over 18 years, orientation to person, place and time, with discontinued curative care for cancer. All patients meeting the above criteria ($n = 305$) were approached to take part in the study on their admission to hospital. A total of 225 patients (74%) agreed to participate. The data were collected by two trained oncology nurses, and PhD students, from January to December 2013.

The study was approved by the ethics committees of the Faculty of Medicine, University of Ostrava (no. 14/2011) and University Hospital, Ostrava (no. 388/2011). All patients were informed of the study objectives and gave their written consent.

After 21 days, the assessment was repeated, involving 140 of the patients (second measurement). The patients were still in hospital. The remaining 85 patients had either died or were unable to complete the form due to deterioration of their health status. The results of the second measurement were used only to compare the presence of anxiety and depression during the hospital stay (i.e. between the first and second measurements). The comparison of the presence of anxiety and depression with respect to the defined parameters and their relationship with QoL were investigated using data from the first measurement only, that is, from 225 patients.

### *Measurements*

Data were collected using the HADS self-assessment instrument for detecting states of anxiety and depression in a hospital setting (Zigmond and Snaith, 1983). The HADS is a scale commonly used to assess depression in cancer patients (Néron et al., 2007). It is accepted as a clinical tool for anxiety and depression and is widely used in both research and practice (Wang et al., 2011), including the area of palliative care, or in patients with advanced cancer (Cripe et al., 2012; Holtom and Barraclough, 2000; Le Fevre et al., 1999; Smith et al., 2003; Wang et al., 2011; Warmenhoven et al., 2013). The HADS is a simple tool that takes only 2–5 min to complete, which is acceptable for terminally ill patients (Snaith, 2003). HADS contains 14 items of which seven relate to anxiety (HADS-a) and seven relate to depression (HADS-d). Each item has four answers and is rated from 0 to 3. Thus, the sum for each subscale ranges from 0 to 21. The original report proposes cut-off scores of 8 and 11 for possible and definite cases, respectively, for each of the two subscales (Wang et al., 2011). The total score (HADS-t) is also calculated, ranging from 0–42. The original English scale for HADS was translated into Czech in accordance with the relevant recommendations. A translation protocol based on the recommendations of Streiner and Norman (2003) was drawn up. The scale was first translated by a professional translator into Czech. It was then reverse-translated into English by another professional translator. The reverse-translation was compared with the original English version, any discrepancies were discussed with the translators, and consensus was reached on the final translation. As a preliminary check, five Czech-speaking patients were then asked to read through the questionnaire with a research assistant and to indicate whether the instructions or any of the items were unclear. All items