Psycho-oncology, as a subspecialty deals with the psychosocial, behavioral, spiritual, and existential dimensions of patients with cancer and their families. Over the past quarter century, psycho-oncology has contributed integrative principles in cancer care (Holland, 2002). As it has been recently shown for the subspecialty of psychosomatic medicine (Gitlin et al, 2004), psycho-oncology has also been recognized as a subspecialty of oncology for the impact it has had at clinical, educational and research levels. Several studies have shown that psychological factors such as stress, personality traits and grief do not increase the risk for cancer (Oksbjerg et al, 2002; Schapiro et al, 2002; Ross et al, 2003; Dalton et al, 2004). This important observation has changed the aspects of the clinical psychosocial research and most recent advances in psycho-oncology have been in clinical areas, such as psychosocial aspects of cancer prevention and screening, assessment of psychiatric and psychological disorders following diagnosis and treatment, family implications of cancer, cancer survivorship, and palliative care (Holland, 2003).

In this article we will consider four key areas drawing much current attention: 1) the evaluation of psychiatric morbidity and its consequences in cancer patients; 2) the development and application of psychological screening guidelines; 3) the role of education and training among cancer physicians; and 4) the impact of evidence-based psychosocial treatment in cancer care.
Psychosocial morbidity in cancer and its consequences

It is well known that the diagnosis and treatment of cancer is accompanied by significant psychological consequences, resulting in emotional stress symptoms (suffering of mind and spirit) and in the development of emotional disorders among cancer patients. In fact, over the last twenty years, several studies have shown that psychosocial morbidity, especially depressive disorders and anxiety, affect 30-40% of cancer patients (Table I). A further 25-30% present psychosocial conditions (e.g., health anxiety, irritable mood, demoralization) which are not identified through the current nosology (i.e., DSM-IV or ICD-10) and which should be a focus of clinical attention and intervention (Grassi et al, 2005).

The need for regularly assessing psychosocial concomitants of cancer derives from the impact of the illness in patients and their families, as summarized in Table II. Psychiatric morbidity has been shown to increase length of stay in the hospital, favor maladaptive coping and abnormal illness behavior, reduce quality of life, decrease adherence to treatment, negatively influence the response to primary chemotherapy, increase the risk of suicide, and, in some studies, the risk of recurrence and death. Psychosocial problems reverberate also within the family, increasing the emotional distress among caregivers and, in the case of a patient’s death, risking a greater chance of complicated or traumatic grief (Table II).

Several phases of the illness trajectory can trigger emotional distress, such as

Table I. Prevalence of psychiatric disorders in cancer patients

<table>
<thead>
<tr>
<th>Authors</th>
<th>Setting</th>
<th>Country</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Derogatis et al, JAMA.</td>
<td>215 outpatients</td>
<td>USA</td>
<td>47% DSM-III</td>
</tr>
<tr>
<td>Grassi et al, Psycho-Oncology.</td>
<td>157 outpatients</td>
<td>Italy</td>
<td>DSM-III-R</td>
</tr>
<tr>
<td>Razavi et al, Br J Psychiatry.</td>
<td>128 inpatients</td>
<td>Belgium</td>
<td>62% DSM-III-R</td>
</tr>
<tr>
<td>Minagawa et al, Cancer.</td>
<td>93 terminally ill patients</td>
<td>Japan</td>
<td>53.7% DSM-III-R</td>
</tr>
<tr>
<td>Morasso et al, Oncology.</td>
<td>107 outpatients</td>
<td>Italy</td>
<td>62% ICD-10</td>
</tr>
<tr>
<td>Kissane et al, Med J Aust.</td>
<td>303 outpatients</td>
<td>Australia</td>
<td>49% DSM-IV</td>
</tr>
<tr>
<td>Prieto et al, J Clin Oncol.</td>
<td>220 hematologic inpatients</td>
<td>Spain</td>
<td>44.1% DSM-IV</td>
</tr>
</tbody>
</table>
finding a suspicious symptom, hearing the diagnosis, awaiting treatment, change or end of treatment, discharge from hospital, surviving cancer, treatment failure, recurrence or progression, advanced phase of illness, and end of life. In spite of efforts to sensitize oncologists and health care professionals to recognize, assess and refer distressed patients, problems are still evident. 30-40% of patients needing psychosocial intervention are going undiagnosed and untreated (Table III). Referrals to psycho-oncology services remain low (Grassi et al, 2000).

Some signs of improvement are becoming apparent, however. Guidelines for the management of distress have been established and are being disseminated. Also, training models aimed at improving doctors’ communications skills are facilitating the recognition and treatment of psychosocial problems and psychiatric disorders of cancer patients.

**Table II.** Main consequences of psychosocial morbidity in cancer patients

- Maladaptive coping and abnormal illness behavior (Grassi et al. *Psycho-Oncology*. 1993;2:11-20)
- Reduced compliance to treatment (Diamate et al. *Arch Intern Med*. 2000;160:2101-2117)
- Increased psychosocial morbidity in the family
- Complicated grief in the family

**Table III.** Under-recognition of distress in patients with cancer

<table>
<thead>
<tr>
<th>Authors</th>
<th>Setting</th>
<th>Country</th>
<th>Recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passik et al. <em>J Clin Oncol</em>. 1998;16:1594-1600</td>
<td>1109 patients</td>
<td>USA</td>
<td>79% mild depression</td>
</tr>
<tr>
<td></td>
<td>12 doctors</td>
<td></td>
<td>33% moderate depression</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13% severe depression</td>
</tr>
<tr>
<td>Söllner et al. <em>Br J Cancer</em>. 2001;84:179-185</td>
<td>298 patients</td>
<td>Austria</td>
<td>33% distress</td>
</tr>
<tr>
<td></td>
<td>8 doctors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fallowfield et al. <em>Br J Cancer</em>. 2001;84:1011-1015</td>
<td>2297 patients</td>
<td>UK</td>
<td>28.8% sensitivity</td>
</tr>
<tr>
<td></td>
<td>143 doctors</td>
<td></td>
<td>34.7% misclassification</td>
</tr>
</tbody>
</table>
Standards and clinical practice guidelines for management of distress in cancer

In 1997, the National Comprehensive Cancer Network (NCCN) (www.nccn.org) in the United States developed the first set of clinical practice standards and guidelines for the management of psychosocial distress. Updates have been made almost every year since 1997 with the last edition issued in 2005. A multidisciplinary panel, consisting of 23 professionals (eg, psychiatry, oncology, psychology, social work, nursing, clergy), worked with a patient representative to create an instrument to routinely and rapidly assess psychosocial morbidity and provide clinicians with practical guidelines for psychosocial care (Holland, 1999; Holland, 2000; Holland et al, 2003). In order to avoid the stigmatizing terms of “psychiatric,” or “psychosocial,” the panel chose the word “distress”, which is defined as “a multifactorial unpleasant emotional experience of a psychological (cognitive, behavioral, emotional), social, and/or spiritual nature that may interfere with the ability to cope effectively with cancer, its physical symptoms and its treatment.

Figure 1. The Distress Thermometer proposed by the NCCN Panel on Distress Management in oncology

<table>
<thead>
<tr>
<th>Extreme distress</th>
<th>No distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
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<tr>
<td>5</td>
<td>5</td>
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<tr>
<td>4</td>
<td>6</td>
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<tr>
<td>3</td>
<td>7</td>
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<tr>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

**Practical problems**
- Housing
- Insurance
- Work/school
- Transportation
- Child care

**Family problems**
- Partner
- Children

**Emotional problems**
- Worry
- Sadness
- Depression
- Nervousness

**Spiritual/religious problems**
- Relating to God
- Loss of faith
- Other problems

**Physical problems**
- Pain
- Nausea
- Fatigue
- Sleep
- Getting around
- Bathing/dressing
- Breathing
- Mouth sores
- Eating
- Indigestion
- Constipation/diarrhea
- Bowel changes
- Changes in urination
- Fevers
- Skin dry/itchy
- Nose dry/congested
- Tongling in hands/feet
- Feeling swollen
- Sexual problems
Distress extends along a continuum, ranging from common normal feelings of vulnerability, sadness, and fears to problems that can become disabling, such as depression, anxiety, panic, social isolation, and existential and spiritual crisis” (Holland, 1999).

The Distress Thermometer has shown to be a valid tool when compared to psychometric instruments such as the Hospital Anxiety and Depression Scale (HADS) and the Brief Symptom Inventory (BSI). Clinical practice guidelines for the management of psychosocial distress are presently at different stages of development in Australia, Germany, England, Hungary, Italy, Israel, Spain, United States, Canada. On the basis of these countries’ experiences, it has been suggested that distress be added as the sixth “vital sign” after pain in order to raise the level of attention to this need during clinic visits (Holland et al, 2004).

While the clinical practice guidelines are slow to disseminate and effect change in practice patterns, they serve as “benchmarks” by which the quality of psychosocial care can be measured. However, in Canada, standards and guidelines have been used since 1999 (“National Psychosocial Oncology Standards for Canada”) to guide the provincial and federal governments in planning and budgeting for psychosocial care in cancer (Canadian Association of Psychosocial Oncology, 1999; www.capo.ca). A more recent step forward in psycho-oncology has been taken in Australia with the publication of a comprehensive clinical guideline handbook “Clinical Practice Guidelines for the Psychosocial Care of Adults with Cancer” by the National Breast Cancer Centre and National Cancer Control Initiative (downloadable at www.nhmrc.gov.au and linked to the UICC website www.uicc.org) which has favored the application of new psychosocial paradigms in oncology.

Training in communication skills

Psycho-oncology has helped advance the care of patients through efforts to train oncologists in doctor-patient communication skills. Recent research has shown that communication skills can be taught and that education and training of oncologists, particularly through peer-led workshops have a strong positive impact in clinical care. Over the last few years, a number of well-conducted RCTs in communication skills training have demonstrated that communication skills are associated with increased physicians’ awareness and appreciation of psychosocial issues and improvement in their communication skills with patients. Of critical importance, it is now recognized that the physician’s ability to communicate and relate to their patients facilitates the early detection of emotional problems and early referral, and helps prevent possible psychological complications. Good patient-centered communication has been also reported as having positive outcomes on various cancer patient measures, such as compliance with medical treatments, symptom resolution, pain control, adjustment to illness and patient’s satis-
faction (Maguire, 1999; Fallowfield and Jenkins, 2004). Lastly, training in communication can both improve physician confidence in their skills and decrease the level of psychosocial morbidity (burnout) (Armstrong and Holland, 2004).

**Evidenced-based psychosocial intervention**

A further recent development regards the new standards for psychosocial intervention in cancer. Unlike 30 years ago, when psychotherapy was not considered as scientific as other medical interventions, new data have provided evidence of the impact of psychological and psychosocial approaches in cancer (Fawzy et al, 1995). Psychological interventions, such as educational, coping and emotional support, and psychotherapy sensu stricto have shown to be of help in several studies. Fawzy (1999), discussing the rationale for psychosocial intervention in cancer care, points out that the diagnosis of cancer and consequent medical treatment determine psychological distress and emotional turmoil that can be specifically managed with psychosocial intervention. However, the choice of intervention is related to several variables, especially the phase of illness. Thus, interventions will vary depending if the patient is in the diagnostic phase, in the initial treatment phase, in follow-up, or has had recurrence and re-treatment, or in the palliative phase. Demographic and clinical variables (e.g., type of cancer, age, gender) should also be considered in deciding the best psychosocial intervention in the context of cancer. The level of psychological distress is also important, since it has been shown that patients with the more intense symptoms seek psychosocial support compared with patients who have social support in their interpersonal lives (Plass and Koch, 2001). This underscores the usefulness of proper psychosocial screening and evaluation guidelines as a way to refer patients in need of help to proper psycho-oncology services. Group therapy has also been examined as an evidence-based intervention with a good cost-benefit ratio, in comparison with individual psychological therapy (Fawzy, 1998). However, more research is needed to address some unresolved problems regarding the specific effects of psychotherapy in cancer patients. While the impact of psychosocial intervention in improving survival is not confirmed (Ross et al, 2002), the effects on well-being, anxiety and depression are clear (Sheard and Maguire, 1999). As recently suggested by Newell et al, (2002) the challenge for the future is to improve the quality of studies on efficacy of psychotherapy in order to make more specific the type of intervention for distinct psychological disorders or problems.

**Conclusion**

In conclusion, psycho-oncology has been a rapidly progressing subspecialty over the recent past. Results of research in psychological screening, education and psychosocial interventions strongly support that view. The NCCN panel advises that further advancements in the immediate future depend on: establishing institu-
tional multidisciplinary committees for implementation of standards and guidelines; conducting multicenter trials that explore brief screening instruments and treatment guidelines; requiring institutions to continuously monitor quality improvement in the psychosocial care of their patients as a priority; and developing educational approaches to distress management for staff, patients, and families.

Bibliography


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