Over the past decade, interest has been growing in the quality of life of men with prostate cancer. Traditionally considered a group with few psychological complications, 10% to 20% of men with prostate cancer are found to have clinically significant levels of psychological distress. This article reviews the prevalence of psychiatric symptomatology among prostate cancer patients, the psychological challenges of coping with the disease, and general guidelines for treatment.

Prostate cancer is the most common malignancy in men and the second leading cause of cancer death in men worldwide.[1] Approximately 189,000 new cases will be diagnosed in the United States in 2002.[2] With advances in medical treatment, men with prostate cancer are living longer, and the quality of their lives is improving.

Several high-profile cases, including former New York City mayor Rudolph Giuliani and controversial financier Michael Milken, have thrust prostate cancer and its impact on a man’s life into the public spotlight. Prostate cancer was recently featured on the covers of several national news magazines such as *Newsweek*, and these articles highlighted the psychological struggles of men coping with the disease.

Although the literature on the psychological complications of cancer has grown over the past 20 years, research specific to prostate cancer has lagged behind. Studies of the quality of life and psychological distress of men with prostate cancer have only begun to appear in the past decade. Recognizing and treating psychological distress is critically important because it has been shown to lead to later presentations of cancer, decreased medical adherence, increased hospital stays, and increased medical morbidity.[3,4]

This article will review previous studies of the psychological complications of prostate cancer, identify important issues for men coping with prostate cancer, and provide a basic guide for referrals and treatment.

### Psychiatric Symptoms in Men With Prostate Cancer

#### Prevalence of Psychiatric Symptoms

High levels of psychological distress have been documented in cancer patients, with estimates of actual psychiatric disorders nearing 25%. Although few studies have specifically addressed psychological distress and psychiatric disorders in men with prostate cancer, none have provided evidence to suggest that men with prostate cancer are less affected than patients with other forms of cancer. In fact, one study of many different types of cancer, including prostate cancer, found no difference in levels of psychological distress among patients with these cancers.[5]

Focusing specifically on prostate cancer, current data on psychological distress come from studies of quality of life, psychological distress, and specific psychiatric disorders.

- **Quality of Life**
  - Quality of life has become a typical measure of outcome in most studies of treatments for prostate cancer. Three instruments are most frequently used to assess quality of life in men with prostate cancer: the European Organization for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaire, the Functional Assessment of Cancer Therapy-Prostate (FACT-P), and the Short Form (SF)-36.[6-8] Each of these instruments includes domains of psychological well-being.

Although a thorough review of all prostate cancer treatment studies that include quality of life as an outcome measure (well over 30 studies in the past 10 years) is beyond the scope of this review, most of these studies focus on the significant differences in emotional well-being between treatment groups. Some studies report that emotional well-being does not differ significantly with different forms of treatment. However, a recent study has shown that different forms of prostate cancer treatment are associated with significant differences in quality of life.[9] Men who underwent a prostatectomy or received brachytherapy reported a higher overall quality of life. Men who received...
radiation therapy reported a lower overall quality of life, but they also reported fewer sexual and urinary symptoms. Men who received androgen-deprivation therapy reported the lowest quality of life.

Whereas the EORTC instrument and the FACT-P were designed specifically for men with prostate cancer, the SF-36 has been used in multiple populations, and its psychological domains have been normed in the general population. According to actual SF-36 mean domain scores for emotional well-being in many of these quality-of-life studies (rather than the statistical differences between treatment groups), men with prostate cancer do not report higher levels of psychological and emotional distress than the general population, suggesting one of two things: Either the emotional well-being of men with prostate cancer does not differ from that of men in the general population, or these instruments are not sensitive enough to detect clinically significant levels of distress in this population.

• Psychological Distress

The term "distress" is now being used, with the hope of decreasing the stigma associated with "psychological" problems in cancer patients and increasing awareness and treatment of psychosocial difficulties. The National Comprehensive Cancer Network (NCCN) defines distress as an unpleasant experience of an emotional, psychological, social, or spiritual nature that interferes with the ability to cope with cancer treatment. It extends along a continuum, from common normal feelings of vulnerability, sadness, and fears, to problems that are disabling, such as true depression, anxiety, panic, and feeling isolated or in a spiritual crisis.[10]

In contrast to the literature on quality of life, men with prostate cancer experience a high rate of psychosocial distress. Screening studies of men at ambulatory prostate cancer clinics show that 20% to 31% report levels of distress high enough to warrant a psychiatric evaluation.[11,12] These studies also demonstrate that significant percentages of these men report depressive symptoms (8.1% to 15.2%) and anxiety (17.8% to 32.6%). Kornblith and colleagues have found anxiety symptoms in men undergoing treatment for prostate cancer as measured by the Intrusion Subscale of the Emotional Impact Scale.[13] These symptoms mainly intrusive thoughts are also seen in posttraumatic stress disorder, but actual diagnostic criteria for the disorder were not applied in this study.

• Psychiatric Disorders

Although studies of distress may include the presence of psychiatric symptoms, they do not provide data on the rates of actual psychiatric disorders. Psychiatric disorders are well-defined clinical syndromes with standard diagnostic criteria that can be found in the American Psychiatric Association’s Diagnostic and Statistical Manual for Mental Disorders (DSM-IV).[14] However, making a psychiatric diagnosis in a cancer patient can be complicated by overlapping symptomatology seen in both psychiatric disorders and cancer (eg, fatigue, weight loss, and sleep disturbance). Substituting more psychological or cognitive symptoms (eg, loss of pleasure) for these more biological symptoms may help establish a diagnosis. Such substitutions aside, standard psychiatric assessments have been shown to be adequate.[15] Little research has been conducted on the prevalence of psychiatric disorders in men with prostate cancer. However, given the rates of depressive and anxiety symptoms reported in studies of distress, one would expect that anxiety disorders and major depression have a significant prevalence in this population.

In a finding similar to reported rates of depressive symptoms, Pirl and colleagues noted a 13% rate of major depressive disorder as diagnosed according to the Structured Clinical Interview for DSM-IV Axis I Disorders in men with prostate cancer who were receiving androgen-deprivation therapy at an ambulatory oncology clinic.[16,17] This rate falls within the range of other studies of ambulatory cancer patients, but is still 12 times the rate of major depression in men in the general population and 32 times that of men aged 65 years or over. Although there may be an association between androgen-deprivation therapy and depression, further research is needed to provide more definitive answers.

The literature describes psychiatric symptoms in patients with cancer, but people with psychiatric illnesses are not exempt from developing cancer. The rate of major mental illnesses such as psychotic disorders and bipolar disorder in men with prostate cancer should be similar to that of the general population. However, one report actually found a decreased incidence of prostate cancer among psychiatric patients.[18]

Medical Causes of Psychiatric Symptoms

Psychiatric symptoms in men with prostate cancer can result from both medical and psychiatric
causes. In a population with a high medical morbidity, possible medical etiologies of psychiatric symptoms need to be considered first. Among these possibilities are brain metastases, delirium, and medical factors that contribute to mood disorders.

**Brain Metastases**
Approximately 1% to 3% of patients with prostate cancer have been reported to have brain metastases. Such patients can present with confusion, seizures, or other neurologic symptoms.[19]

**Delirium**
Delirium is marked by confusion, a waxing and waning sensorium, hallucinations or paranoia, and sometimes agitation. Mood symptoms, either depressive or manic, can also be present in delirium. Delirium always has a medical etiology; the first goal of treatment is to find the cause and, if possible, treat it. Possible causes of delirium include medications, infections, and metabolic imbalances. Hypercalcemia, for example, can be a cause of delirium. However, it is rarely seen in prostate cancer patients despite metastases to bone. Neuroleptics, such as haloperidol or atypical neuroleptics, are the treatment of choice.

**Factors Contributing to Mood Disorders**
Although depressive symptomatology in men with prostate cancer is more fully described below, clinicians should be aware of medical factors that can contribute to depression. By treating or adjusting these medical issues, psychiatric symptoms can be improved markedly. Some of these factors include pain, glucocorticoids, hypothyroidism, and possibly androgen-deprivation therapy.

**Psychological Challenges in Coping With Prostate Cancer**

**Screening**
The psychological needs of men with prostate cancer begin before they ever present for diagnosis or treatment. Men are less likely to seek medical help than women. In fact, much of the research and resources targeted at men with prostate cancer focuses on screening and access to care. Several factors keep men from entering a health-care setting; some are universal to health care, some unique to the prostate cancer experience. Factors that may make it more difficult for men to seek and obtain treatment include the traditional male role, age, race, and sexual orientation.

**Traditional Male Role**
Society’s image of men as strong and independent may prevent them from entering the health-care system. In seeking care, men may fear that they will be viewed as weak and that they should instead "deal with it" on their own. Men may also cite excuses for not getting medical care such as not having the time because of work, home, and family obligations. The lack of interest on the part of men in their own specific health care is even seen in pharmaceutical advertisements. Instead of targeting men in their promotions of sildenafil (Viagra), Pfizer has advertised to their female partners who are more likely to seek medical help.

Should a man make it to a doctor’s office, there is no guarantee he will receive prostate cancer screening. The idea of a digital rectal exam typically makes men anxious, provoking concerns about discomfort and the violation of their manhood. Primary care physicians often join their patients in avoiding this sometimes uncomfortable and socially awkward test, which typically lasts less than a minute.

**Race/Ethnicity**
African-American men die from prostate cancer twice as often as their white counterparts. Recent screening efforts have attempted to increase awareness of prostate cancer in the African-American community. The macho image may be even more influential among African-American men and other men of color. However, the role of race and ethnicity may be confounded by other factors that contribute to decreased screening for prostate cancer, such as access to health care, knowledge about the disease, and socioeconomic status.

**Age**
Because prostate cancer primarily affects men over age 65, barriers to screening associated with the elderly also apply to this population. The side effects of prostate cancer treatment are often minimized because of stereotypes of older men. For example, sexual dysfunction, reduced physical activity, and even urinary incontinence can be viewed as not having a significant impact on the lives of these patients or even as being part of the natural aging process. However, older men still complain about these complications, which can be a source of great distress. Additionally, older men face losses in their sense of identity. These losses may begin before they are diagnosed with prostate cancer, as they retire and cease to be caregivers to their grown children. With illness, they may face another loss—having their children become their caretakers.

**Sexual Orientation**
Gay men also have to deal with internal and external forces that may keep them from seeking and receiving appropriate prostate cancer screening and treatment. Gay men are less likely to have candid discussions with their primary care physician, and many practitioners feel uncomfortable discussing the special health needs of gay men. Almost all prostate cancer literature...
and support groups are geared toward heterosexual men. Gay men and their partners often feel left out of these resources.

**Diagnosis and Treatment**

- **Diagnosis** Once the diagnosis of prostate cancer is made, psychological distress in men with prostate cancer, in many ways, mirrors that of other cancer patients. Anxiety, fear, and depression are common after a diagnosis of cancer. Anxiety may be heightened for the prostate cancer patient, who is often entering the health-care system for the first time. Many men have successfully avoided hospitals and examination rooms and now find themselves having to navigate not only a complex diagnosis and treatment plan, but institutions and managed care as well. Prostate cancer patients often must contend with a sudden loss of control. Many patients, after enjoying years of leadership in their homes, workplaces, and communities, are unable to cope with sudden feelings of helplessness and lack of control over their physical health. Many prostate cancer patients attempt to gain control in any way they can throughout their treatment. Decisions concerning method of treatment, place of treatment, treating physician, and even support options can be used by the patient to try to regain control of his life and future.

Despite an intense desire to choose the best treatment, institution, and doctor, there often is no clear-cut best treatment, and men may get differing opinions from different specialists, adding to their anxiety.[19] Some men may join support groups that can help disseminate useful information, supporting their internal desire to gain control by actively doing something about their disease. Because of the stigma associated with cancer and widespread lack of understanding, patients are often isolated and unable to feel supported and understood by their loved ones and usual support system. Men with prostate cancer are less likely than other cancer patients to disclose their diagnosis and tend to minimize the impact of the illness on their life and need for support.[21]

- **Treatment** A major focus of research on the psychosocial aspects of prostate cancer has been on how treatment affects a patient’s quality of life. Watchful waiting, surgery, radiation, chemotherapy, and hormonal treatment carry with them significant psychological impacts. Once the patient has begun treatment, his feelings of loss of control may intensify. He is entering into a world full of equipment, medicines, and procedures that are not often topics of discussion outside the doctor’s office. What the average person understands about chemotherapy and radiation may conjure up terrifying images.

Watchful waiting includes the risk that the window of opportunity for successful treatment may pass between checkups at least in the patient’s mind. Also, there is a clear message implied in the watchful waiting option. For an older man, being told that he will probably die sooner of something else can be a frightening blow to his ego and forces him to confront his own mortality. Even with its lack of invasive interventions, watchful waiting significantly affects a man’s quality of life, sometimes more than surgery or radiation.[9]

Impotence, incontinence, and fatigue can be the most debilitating side effects of many prostate cancer treatments. Incontinence is sometimes seen as worse than impotence. Although it is easy to keep erectile dysfunction hidden in public, incontinence may often cause social embarrassment. Nevertheless, sexual dysfunction can create difficulties in relationships that are already stressed by a partner’s cancer. Female partners often report having higher levels of psychological distress than their spouses with cancer.[12,13] Some men may eschew physical and emotional intimacy in order to avoid dealing with their erectile dysfunction, leading to further feelings of isolation.

Doctors may be afraid of “scaring patients away” from treatment with potentially staggering statistics on side effects. Given the common side effects of various treatment options for prostate cancer, it is easy to understand why men may avoid seeking treatment in the first place. Although men’s attitudes toward health care involve a great deal of anxiety and resistance to begin with, these attitudes are compounded when the possible ramifications include intrusive testing and treatment that can be emasculating, humiliating, and identity-changing. That said, health-care providers can help these men adapt to the changes in their life and assist in supporting their sense of self and worth.

**Treatment of Psychosocial Distress**

The NCCN developed protocols for the management of psychosocial distress in cancer patients, which were published in *ONCOLOGY* in May 1999.[10] Applicable to any type of cancer, these guidelines have three main components: screening for distress, evaluation, and treatment.

**Screening** Screening for psychosocial distress is critical. Previous research has shown that oncologists and
other care providers often overestimate their patients’ well-being. Oncologists recognize depression in less than half of their depressed patients, and only 2% of cancer patients with psychiatric problems are referred for psychiatric evaluation.[22,23] Although screening instruments are not used to diagnose psychiatric disorders, they can aid in identifying patients who may be having difficulties coping, could use extra support, or could benefit from a referral to a mental health clinician. Some widely used instruments, such as the Brief Symptom Inventory (BSI), that have been validated and normed in oncology populations have indices for depressive symptoms, anxiety, and other areas of psychological functioning.[24] Other instruments that are used to screen for psychological distress are the Hospital Anxiety and Depression Scale (HADS), the Beck Depression Inventory (BDI), and the Beck Anxiety Inventory (BAI).[25-27] These instruments are used in psychiatry research and clinical practice and have the advantage of being easily scored by hand. Finally, evidence suggests that a simple variation on a Likert scale, the "distress thermometer," is a useful rapid screen for distress in men with prostate cancer.[11] Patients are given a thermometer graded from 0 to 10 and asked to rate their distress. This easy-to-administer test has been well received by men at prostate cancer clinics. Some evaluation is suggested for scores over 5.

**Evaluation**

With screening comes the responsibility of evaluation. Before initiating screening, plans should be in place for the management of patients who appear to have significant distress. The first step in evaluation is discussion with the care providers. This initial assessment can determine the nature of the distress (having trouble with transportation, marital stresses, depression, or spiritual crises) and facilitate the appropriate referral. Some care teams may feel equipped to provide additional psychosocial support to their patients. However, patients with significant psychiatric symptoms, confusion, and suicidal ideation should be referred to a psychiatrist or mental health clinician for further evaluation and treatment.

**Treatment**

In many cases, treatment of distress begins simply with a referral from the oncology team, which is usually the front line in providing supportive therapy to patients at the time of their diagnosis and throughout their medical treatment. However, other resources outside of the team, including support groups, psychotherapy, and psychopharmacology, may provide additional benefit.

- **Support Groups** Many hospitals and communities have support groups for men with prostate cancer. Support groups are usually local groups organized by men with prostate cancer, or national groups such as Us Too. Some support groups may have a facilitator with mental health training. Although many men may find support groups beneficial, not all do. In fact, men with cancer have been shown to be less interested in support groups than women with cancer.[28]

- **Psychotherapy** Psychotherapy for men with prostate cancer may be especially important if they are experiencing difficulty coping with their diagnosis, treatment, and changes in their life and relationships. Although some older men may be leery of psychotherapy, others may find "talk therapy" more palatable than the addition of pills to an already long list of medications. Psychotherapy can involve either individual or group therapy. Individual therapy often takes the form of crisis management, with problem-solving and supportive techniques. Coping with feelings brought about by changes in lifestyle, financial status, role functions, and concerns about death should be addressed. The effects of cancer treatment, such as impotence and intimacy, can also be the focus of therapy. Depending on the patient’s level of functioning and personality, standard psychotherapies such as cognitive-behavioral therapy, psychodynamic therapy, and even psychoanalysis, may be useful.

Group therapies and psychosocial interventions specifically for patients with cancer have been extensively studied and clearly show benefit for people who are experiencing distress.[29] These group interventions are different than support groups and often utilize psychoeducation; ie, teaching participants about the natural course of emotions upon being diagnosed and treated for cancer and the development of coping strategies. The prophylactic use of groups to prevent distress has been shown to be helpful for symptoms of anxiety but not depression.[30]

- **Psychopharmacology** Psychotropic medications are being used increasingly in patients with cancer.[31] However, only a few studies have demonstrated the efficacy of psychotropic medications in cancer patients, and none of these were conducted specifically in men with prostate cancer. Clinically, the treatment of psychiatric symptoms with medications has followed the same general approach as for patients without cancer, with special emphasis on drug tolerability, onset of action, and multiple symptom treatment in this population. A review of psychopharmacology for psychiatric disorders in people with cancer is beyond the scope of this paper but available elsewhere.[31,32] Medications, such as selective serotonin-reuptake
inhibitors (SSRIs), can be used to treat both depression and anxiety. Low-dose antidepressants, particularly SSRIs and venlafaxine (Effexor), may alleviate hot flashes in some men.[33,34] However, for treatment of acute anxiety, clinicians should consider the short-term use of mild tranquilizers such as benzodiazepines or even low-dose atypical neuroleptics.

**Conclusions**

Men with prostate cancer face a variety of psychological challenges that begin at screening for cancer and continue beyond the completion of treatment. Substantial levels of anxiety and depression are present in these men, and this distress should be screened for and treated. Being aware of these challenges may help facilitate the understanding of patients' behavior and provide better medical care.

**References:**


15. Kathol RG, Mutgi A, Williams J, et al: Diagnosis of major depression in cancer patients according


