Psychological Support for the Breast Cancer Patient

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A woman confronted by the diagnosis of breast cancer faces the challenges of a life-threatening illness. The seriousness of the diagnosis, the nature of treatment, and the natural history of illness defines the challenge to coping. Each woman looks to her physician first for clarification of the medical treatment. Since treatment often requires breast surgery, a combination of chemotherapy and radiation, and antiestrogen treatment that hastens menopause, the psychological effects are different for premenopausal women married with children, women concerned about their physical attractiveness, women who want to preserve fertility, and women concerned about the effect of the illness on their partners. The diagnosis has one meaning for a woman with a family history of breast cancer who suffered in her adolescence as her mother died of breast cancer, and another if she is married to a man who lost his mother to breast cancer.

The medical plan, as the first method of coping, clarifies the diagnosis and formulates a medical treatment to keep the threat of malignancy at bay. For each woman, the psychological challenge depends on psychiatric history, her other burdens, and her temperament [1]. Women tend, more than men, to seek and accept care for psychiatric and psychological needs, and psychiatry and psychology offer tools to help women cope as they go forward. The trained psychiatrist, psychologist, or social worker collaboratively bring to the bedside of women, technical skills in listening and the recognition of biological and psychological syndromes that simultaneously affect mood.

30.1 Anxiety at Diagnosis

Most women are quite alarmed when a mammogram is abnormal. Anxiety persists for several weeks even when the abnormality is a false positive. The more quickly the outcome is clarified, the better [2]. With a lump in the breast or an abnormal mammogram, the radiologist's and surgeon's effort to make the diagnosis can require several procedures with unclear answers or unclear margins. With each procedure, the patient continues to be anxious. Delays that are minor in a healthcare system are major for each woman's alarm system. A diagnosis of ductal carcinoma in situ (DCIS) or invasive cancer means that the woman may undergo a limited resection or mastectomy and consider breast reconstruction. Chemotherapy implies visible hair loss, fatigue, malaise, and menopausal symptoms. Antiestrogen medications augment menopausal symptoms. These treatments affect a woman's sexual confidence and fertility. She worries about babies not yet born, her children's risk of losing their mother, and the risk that the children themselves will be vulnerable to breast cancer.

A woman's capacity to ignore a breast lump, to deny the serious worry about cancer, and to delay bringing it to a doctor's attention has been associated with maladaptive coping skills. If a woman does not tell anyone about the lump, it is easier to suppress the worry, and that silence is a strong factor that predicts delay in diagnosis. Psychiatric history and poor social support explain delay in diagnosis in many but not all studies [3]. Other factors also contribute to delay: older age, fewer years of education, nonwhite ethnic origin, breast symptoms other than a lump, and not attributing breast symptoms to breast cancer.

30.2 Psychological Assessment

Once a diagnosis of breast cancer is made, we are often asked to consult on issues of decision-making, anxiety, depression, insomnia, fatigue, and adaptation. The first challenge is to hear the patient explain what the diagnosis means, what worries her, and what her burdens were before the diagnosis. Understanding her very individual considerations, age, and developmental challenges, and past psychiatric history, allows us to put in context any plan. Her

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I. Jatoi and A. Rody (eds.), *Management of Breast Diseases*, DOI 10.1007/978-3-319-46356-8_30

ability to cope is related to how recently she has become aware of the diagnosis and the urgency of medical treatment. Initial shock and denial give way, with the help of medical staff and other support, to recognition that there are some emergency issues and then a marathon of medical challenges. Sometimes, emotional issues are on the back burner until the medical challenges are met. Specific worries may relate to surgical procedures, radiation treatment, and changes in body image. Standard anticancer drugs like cyclophosphamide and doxorubicin cause catabolism, hair loss, weight gain, and fatigue. There is a prolonged focused period of treatment and partial disability. Taxanes like paclitaxel can also add neuropathic pain and numbness. Intermittent dexamethasone used to prevent hypersensitivity and vomiting has effects on mood, sleep, and weight. Depending on the patient's age, menopausal symptoms are temporary at first and then become permanent, sooner than would have occurred without treatment. Concerns about loss of control and the possibility of recurrence punctuate treatment and recovery.

30.3 Effect of Hormonal Treatment on Mood

The plan for hormonal treatment directly affects psychological status; as a woman tries to cope with serious illness, her emotions are modulated by estrogen deficiency. Women who are taking estrogen/progesterone hormone replacement usually stop abruptly at the time of diagnosis. Dysphoria, insomnia and hot flashes may also develop abruptly if the plan includes ovariectomy or leuprolide treatment. These changes come more gradually if adjuvant chemotherapy suppresses ovarian function and antiestrogen treatments are added later.

By the time women with estrogen-positive tumors are about to receive hormonal treatments—after completing surgery and/or chemotherapy, more than half have mood alterations, word finding problems and loss of libido. Tamoxifen or aromatase inhibitors are then added. In one study comparing exemestane and tamoxifen [4], exemestane caused more difficulty with sleep. Hot flashes increased in frequency for 3 months but decreased thereafter. On average, women who took tamoxifen had more hot flashes at 1 year than women on exemestane. There was no difference in mood alteration, impaired word finding, or low energy [5]. At 1 year, libido was worse with exemestane. Hot flashes tended to decrease with time with either tamoxifen or exemestane. Low energy was a problem for 75 % of women. For those intolerant to tamoxifen, letrozole or exemestane has been shown to improve side effects, including mood in the short term [6].

30.4 Adherence to Hormonal Medications

Most, but not all, women adhere to the prescribed many years of antiestrogen treatment; adherence reports vary widely. Because these medications are just pills, their critical role to prevent tumor recurrence is not always appreciated. Psychological support and clarification of the role of antiestrogen medications may be critical to disease outcome. Women tend to overestimate their faithfulness to a tamoxifen regimen [7]. In a study of a state insurance database of more than 2000 women, about 23 % of women taking tamoxifen failed to achieve optimal adherence of 80 % days covered by filled prescriptions. A five-year course was not completed by 31 % [8]. Overall, the likelihood that women would continue these treatments depends on whether they have a positive view of tamoxifen at the outset and an improving view as time goes on [9]. Women are more apt to persist in taking tamoxifen if they have more social support, if they feel they have had a role is decision-making, if a physician has input about the hormone prescription and if they are told the side effects in advance [10].

Many women with early-stage breast cancer who were prescribed an adjuvant aromatase inhibitor like anastrozole may also not take it faithfully. Mean adherence over the first 12 months of therapy ranged from 82–88 %; the mean adherence of anastrazole also decreased each year, dropping to 62–79 % in the third year [11]. Depression is associated with non-adherence to adjuvant endocrine therapy, especially in younger women [12].

30.5 Anxiety

While most patients are anxious about medical treatment, some patients have a history of anxiety disorder or phobia which quietly adds to the distress of treatment. Phobia of needles or claustrophobia during radiation treatment or magnetic resonance imaging can interfere with diagnosis and treatment. Some patients have a chronic tendency to expect the worst or to "catastrophize." They may always be preoccupied with planning the future and anticipating the next threat. Loss of control is a dominant theme. For those with anxiety disorder, higher levels of anxiety, panic attacks and phobias prior to breast cancer, anxiety already interferes with quality of life. During routine surveillance of a cancer patient, anxiety can begin a week or a month before each scan to check the status of the illness, so that there may be little peaceful time between tests. While every woman must face anxiety about new symptoms following diagnosis and seek reassurance from her physician, a subgroup may be preoccupied and unable to be reassured that new pains are

not a signal of recurrent cancer. Generalized anxiety, panic disorder, or excessive worry about every physical symptom can be treated by medications and/or cognitive behavioral treatments specific for anxiety. Antidepressants, specific serotonin reuptake inhibitors, in particular, in low dose, can reduce the chronic level of anxiety. When anxiety is chronic, antidepressants are preferred over benzodiazepines. In addition, patients can learn strategies to reduce anxious thoughts about recurrence or medical complications by relaxation, distraction, thought stopping, substitution, or other techniques of cognitive treatments. Specific cognitive behavioral techniques have been developed for anxiety disorders, and these may be modified for the conditions of cancer treatment [13].

30.6 Sleep

Insomnia is a major complaint of women treated for breast cancer (Table 30.1). The alarm of a new diagnosis often disrupts sleep, especially in the first few months. Subsequently, the course of estrogen deficiency may intervene with nighttime hot flashes. Anxious worry about not falling asleep is a psychophysiologic cause of insomnia; anxiety about falling asleep can prevent falling asleep. For instance, the cascade of thoughts about sleep can follow from the desire to do everything on behalf of getting well. If a woman does not fall asleep, she fears she will not sleep well and will be damaging her effort against cancer. This assumption and the vicious cycle is a psychophysiologic cause of insomnia that can be treated with cognitive behavioral treatment [14]. Often, anxiety about falling asleep and sleep disorder predate breast cancer.

Several factors associated with chemotherapy can disrupt sleep. Women who have been taking benzodiazepines like lorazepam as a medication to facilitate chemotherapy and prevent nausea may have rebound insomnia when they stop hypnotics intermittently. Patients who take prochlorperazine for nausea may develop the extrapyramidal side effect, akathisia, or restless legs that prevent sleep. Because nausea is so common during chemotherapy, patients often fail to mention that they are using a phenothiazine like prochlorperazine, which can unexpectedly cause restlessness. Anticipatory anxiety associated with the next scan or the next chemotherapy treatment also prevents sleep. During chemotherapy, dexamethasone to prevent delayed nausea and vomiting or early emesis with chemotherapy is another cause of insomnia. Steroids are also added to prevent hypersensitivity to taxanes. Side effects of dexamathasone to prevent delayed nausea include insomnia, agitation, and depression post-cessation [15]. Caffeine, decongestants, and alcohol can also contribute to insomnia. Sleep-disordered breathing and sleep apnea must also be considered. Nocturnal oxygen desaturation may be a clue that a sleep study is needed [16–18].

Table 30.1 Causes of insomnia in breast cancer patients

New threat of diagnosis or recurrence
Estrogen deficiency with hot flashes
Worry about not falling asleep
Physiologic dependency on benzodiazepines
Side effects of antiemetic phenothiazines (akathisia)
Anticipatory anxiety about repeat scans
Dexamethasone treatment with chemotherapy
Caffeine, decongestants, alcohol
Sleep apnea

Insomnia is a feature of the estrogen deficiency. About 65 % of postmenopausal women treated for breast cancer have hot flashes. About three-quarters have hot flashes in the first 10 years after their last menstrual period, and half have hot flashes even later. These are more severe in younger tamoxifen users who had chemotherapy [19].

A hot flash begins with sweating, tachycardia, and increased peripheral blood flow. Evaporation of sweat may lead to cooling. Sometimes an aura of anxiety or thirst precedes the flash. The wave of heat spreads over the body, particularly the upper part. Menopausal women without breast cancer report trouble falling asleep, waking frequently at night, feeling unusually tired [20]. Savard found more wake time in the 10-min periods around hot flashes and more stage changes to lighter sleep in breast cancer survivors. Compared to nights without hot flashes, there was a lower percentage of stage II sleep and a longer rapid eye movement (REM) latency. Overall, hot flashes were found to be associated with less efficient, more disrupted sleep [21].

While menopausal women treated with estrogenic hormones sleep better, this option is not available to women with hormone-sensitive breast cancer. Antidepressants have been used as an alternative for vasomotor symptoms and sleep. Benefit has been documented for a number of antidepressants, both specific serotonin reuptake inhibitors: paroxetine [22], fluoxetine [23], and the specific serotonin norepinephrine reuptake inhibitor venlafaxine [24]. Serotonin mediation of hot flashes has been suggested. Gabapentin at 900 mg per day also reduces hot flashes in women with breast cancer [25]. Vasomotor symptoms and worse depressive symptoms were meaningful predictors of insomnia in women less than 4 years from stage I to IIIA breast cancer [26].

30.7 Cognitive Difficulties

Troubles with working memory and concentration are common complaints of patients who receive adjuvant chemotherapy for breast cancer. Specific neurocognitive deficits do not typically match subjective reports. One study showed that only about 20 % of breast cancer patients post-adjuvant treatment had elevated memory and/or executive function complaints that were significantly associated with domain-specific neuropsychological test performances and depressive symptoms [27]. Patients who are more distressed report more cognitive failures. In the acute setting, benzodiazepines, steroids, anticholinergic medications affect cognition and attention. The catabolism and fatigue, perhaps the inflammatory response, associated with chemotherapy further impairs function. In breast cancer as opposed to other tumors, the course of estrogen withdrawal also may add to cognitive dysfunction [28–30]. Broken sleep, anxiety, low mood, and the trauma of the diagnosis further contribute.

Talk of "chemobrain" leads women receiving adjuvant chemotherapy for breast cancer to worry about permanent cognitive dysfunction. A meta-analysis of studies of cognitive impairment associated with adjuvant chemotherapy in women with breast cancer reviewed 27 studies involving 1562 patients. In cross-sectional studies with varied methodological approaches, a significant association between adjuvant chemotherapy and subtle cognitive impairment held across studies; however, the level of cognitive impairment was not different between the group that received chemotherapy and the group that did not. For prospective studies, the reviewers found that cognitive function improved over time after receiving adjuvant chemotherapy [31]. It is reassuring to know that a Danish nationwide cohort of almost 1900 women treated for primary breast cancer found no differences in long-term subjective cognitive impairment at 7–9 years post-surgery between those who received systemic chemotherapy (CMF: cyclophosphamide, methotrexate, 5-fluorouracil or CEF: cyclophosphamide, epirubicin, 5-fluorouracil) and those that did not [32]. However, both neuropsychological testing studies and neuroimaging findings suggest that a small subset of women may have negative cognitive effects from treatment [33].

A clinical approach to cognitive impairment in breast cancer patients is to discontinue benzodiazepines, alcohol, and anticholinergic medications, to encourage the best sleep hygiene, and to optimize antidepressant treatment of major depressive disorder, Modafinil has shown some benefit for cognitive function in breast cancer survivors [34]. Methylphenidate 5 mg b.i.d did not show benefit in a randomized, placebo-controlled double-blind study in women undergoing adjuvant chemotherapy for early breast cancer [35]. Some preliminary work has suggested a role for donepezil in breast cancer survivors if cognitive impairment is a factor 1–5 years post-chemotherapy [36].

30.8 Overlap of Symptoms of Estrogen Deficiency and Depression

The diagnosis of clinical depression is complicated by the overlap of symptoms that make up the syndrome of major depressive disorder (MDD) and those symptoms associated with breast cancer treatment, but the psychological and biological stressors associated with treatment also make MDD more likely. Low mood, poor concentration, fatigue, insomnia, thoughts of death, and prominent anxiety often come with breast cancer treatment. Insomnia is a common symptom of MDD. Patients with MDD have trouble falling asleep and staying asleep [16]. They have less delta sleep, broken sleep, and alterations in timing, amount, and composition of REM sleep [17]. In addition to waking at night, the night is spent in dysphoria, anxiety, and hopelessness. In the setting of breast cancer, patients often attribute their unhappiness to the diagnosis of cancer and the natural concerns that come from the diagnosis. However, persistent insomnia, anhedonia, constant awareness of the diagnosis without the ability to concentrate on other things, or to enjoy what is normally enjoyed become markers for the syndrome of MDD. History of MDD and/or anxiety disorder, in other words, lifetime history, should add heavily to the assessment of the diagnosis. A history of anxiety disorder predisposes to depressive disorder.

As breast cancer treatment often moves a premenopausal or perimenopausal woman further toward menopause, dysphoria is often associated with menopausal symptoms. Independent of the psychological adjustment to breast cancer, some women are particularly sensitive to mood changes from female hormones. Postpartum or premenstrual changes have been linked with clinical mood syndromes that depend on the individual sensitivity of women to specific changes in female hormones [37]. Epidemiological studies have suggested that women approaching menopause are more at risk for MDD. Clinical depression has been associated with the transition to menopause [38]. Schmidt found a 14-fold increased risk for depressive symptoms in the 2 years surrounding menopause compared to the time of regular cycles. Irritability, nervousness, and frequent mood changes are common in the transition [39]. Both antidepressants and hormones ameliorate the symptoms. In one study in women without breast cancer, aged 40–60, who were perimenopausal or menopausal, escitalopram as well as estrogen/progesterone improved sleep and vasomotor symptoms, but escitalopram had a better effect on depressive mood [40, 41]. Other antidepressants also benefit mood in

menopausal women; these include mirtazapine, fluoxetine, citalopram, paroxetine, and venlafaxine.

Clinical depression is more common with surgical menopause, suggesting that the risk of depression is greater with sudden cessation of estrogen. In breast cancer patients, this would occur with ovariectomy, leuprolide treatment, or abrupt cessation of hormone replacement treatment.

30.9 Fatigue

Fatigue may come from treatment side effects, MDD or both. Treatment for breast cancer, particularly with adjuvant chemotherapy, is itself fatiguing. Fatigue is related to the catabolic effects of treatment and associated inflammatory response, loss of estrogenic hormones, sleep impairment, and stress. The majority of women undergoing adjuvant chemotherapy, who have cancer-related fatigue, do not have clinical depression [42]. The diagnosis of MDD was established in only 17 % of those who met a case definition of cancer-related fatigue. Past history of clinical depression and prevalence and incidence of cancer-related fatigue were significantly related to the diagnosis of depression at post-treatment assessment. In the 6 months after treatment, those who tend to catastrophize and those who weigh more are more fatigued [43].

A minority of breast cancer patients report fatigue and impairment comparable to that seen in women with chronic fatigue syndrome. These women tend to score higher on measures of depression, interpersonal sensitivity, and obsessive-compulsive behavior [44]. Fatigue correlates strongly with self-reported neuropsychological function but not with objective neuropsychological function in a laboratory setting [45].

Persistent fatigue is a marker for women who tend to feel overwhelmed. High anxiety, high impairment in role function, and low sense of control over fatigue symptoms at baseline assessment are associated with persistent fatigue [46]. Women who experience depressive symptoms in the first years after diagnosis are at risk for long-term fatigue regardless of how tired they were at the outset [47].

The best treatment for MDD is critical for those with persistent cancer-related fatigue. In addition to antidepressant medication, cognitive behavioral treatment and graded exercise, which has been important in the treatment of chronic fatigue syndrome, might also be important for the subset of breast cancer patients with persistent fatigue and comorbid depressive disorder [48]. Cognitive behavioral techniques and programs of energy conservation have been used for cancer-related fatigue [49, 50]. Exercise programs and mind–body interventions like yoga have also been studied [51].

30.10 Prevalence of Major Depressive Disorder in Breast Cancer Patients

A recent review of the prevalence of MDD in breast cancer patients estimated 10–25 %, but came to the conclusion that the precise rate is difficult to determine because of the use of symptom screening tools, the different causes of similar symptoms, and the rare use of Diagnostic Statistical Manual case definition in previous studies [52]. Lifetime history of affective disorder becomes an important factor in diagnosis.

In Denmark, where there is both a psychiatric registry and tumor registry, between 1970 and 1993, breast cancer patients had a significantly increased incidence of psychiatric admission with affective disorders and anxiety disorders compared to other women [53]. The risk of nonnatural mortality was increased in the first year after diagnosis [54]. Suicide risk tended to increase with depression and age. An international population-based study of more than 700,000 women found that the suicide risk remained elevated among women diagnosed between 1990 and 2001 and throughout follow-up. It was highest among black women [55].

30.11 Treatment

For women who have MDD, particularly if they have a history of previous episodes of MDD, antidepressant medications are the standard of treatment. (Tables 30.2 and 30.3) These drugs may have additional benefit for cognitive, sleep, fatigue, and vasomotor symptoms, as already noted. Antidepressant medications have not been associated with increased risk of breast cancer in epidemiological studies [56, 57]. In general, there is no a priori reason to pick one antidepressant over another except to take advantage of the side-effect profile or to reduce side effects in a given patient. If the patient is taking tamoxifen, CYP 2D6 inhibition may lower the effective level of tamoxifen metabolites [58]. Whether this interaction is clinically meaningful is still unclear [58–61]. In that context, for instance, citalopram, escitalopram, or venlafaxine may be preferred.

Combination of antidepressant medication with tailored psychotherapy has a better outcome. Antidepressants are

Table 30.2 Syndromes treated by antidepressant medication

Panic disorder
Anxiety disorder with preoccupation about somatic symptoms
Hot flashes
Generalized anxiety disorder
Perimenopausal mood disorder
Major depressive disorder (MDD)

Table 30.3 Antidepressant medications

	Starting dose	Maintenance dose
Citalopram (Celexa)	10 mg/day	20–40 mg/day
Escitalopram (Lexapro)	5–10 mg/day	10–20 mg/day
Sertraline (Zoloft)	25–50 mg/day	50–150 mg/day
Mirtazapine (Remeron)	15 mg h	15–45 h sedating, weight gain
Venlafaxine (Effexor)	37.5 mg/day	75–300 mg/day XR is daily
Wellbutrin[a]	75 mg/day	150 SR b.i.d. or 300 XL
[a]Duloxetine	30 mg/day	60 mg q.d.
[a]Fluoxetine	10 mg/day	20–60 mg/day
[a]Paroxetine	10 mg/day	20–60 mg/day

[a]Consider 2D6 inhibition as a factor that may affect tamoxifen metabolism

often all the more effective for clinical depression when combined with cognitive behavioral treatment or other psychotherapy in patients without cancer [62].

In those women who have cancer, even those not clinically depressed, psychosocial interventions focused on the challenge of the cancer itself—group therapy, cognitive behavioral therapy, supportive-expressive formats, relaxation techniques, and individual therapy—can reduce distress and increase coping [63, 64]. Psychological interventions for women with non-metastatic breast cancer [65] and metastatic cancer [66] have been reviewed by the Cochrane collaboration. For non-metastatic breast cancer, cognitive behavioral therapy (CBT) was the most common intervention (24 of 28 studies). CBT was delivered individually, in couples, or in groups and reduced anxiety and mood disturbance. Effects on survival were uncertain. Some of the benefits of interventions like cognitive behavioral stress management for patients with non-metastatic breast cancer early in treatment may last up to 15 years later [67].

For women with metastatic breast cancer, the Cochrane review looked at 10 studies involving almost 1400 women, three with CBT and four with supportive-expressive therapy, mostly group treatments. Benefits were found for some psychological variables. Group psychosocial interventions per se were not found to increase survival [68–72].

Group-based cognitive behavioral stress management has also reduced depressive symptoms in patients who do not have breast cancer but feel that they are at greater risk for the diagnosis because of family history [73].

Formal talking therapies have strengthened a woman's feeling of control and reduced vulnerability and distress as she faces the uncertainty of cancer. With group and individual treatment, she is less alone. She may be more able to confront the existential plight and the difficult practical challenges that come with negotiating progressive illness. Education and support offer tools for expressing her wishes, using energy wisely, and living fully on her own terms. Social skills like ability to speak effectively with family and medical staff can improve. How to live with the change in breasts, how to grapple with dating and options for having children, worries about genetics of the cancer are topics within psychotherapy. Women may seek advice on their role as parents and how to discuss their illness with their children [74]; and practical and emotional concerns about their sexual relationships can be heard.

30.12 Patients with Psychotic Illness

There is no increased risk of breast cancer in patients with schizophrenia or bipolar disorder [75]; however, patients with psychosis often present with more advanced disease, after insufficient screening and little medical care [76]. Follow through with treatment is more variable.

Although psychosis is treated with dopamine blocking agents that may be associated with elevated prolactin levels, concern about prolactin level should not stand in the way of optimal treatment of a psychotic disorder. Some have worried that a rise in prolactin would add risk of cancer progression in breast cancer patients, but a recent review of preclinical and clinical evidence did not find support for this hypothetical concern [77].

Thoughtful communication with a woman with psychosis may take more time, and the psychiatric team may be critical for engaging the patient. Her particular delusions may affect her ability to comply with treatment. Many patients with psychoses have difficulty with abstract thinking. Explanations should be concrete. These patients may not trust family or physicians and may be more sensitive to feeling controlled. They may have more difficulty with simple decisions. Each decision should be made with respect, with alternatives of no treatment, with short deadlines to decision. When the patient's own executive function is impaired, thinking through in advance a plan to sustain adherence both to psychiatric and medical treatment is all the more important. Collaboration between psychiatrist and oncologist should be explicit.

30.13 Conclusion

Expert care means that each woman has the opportunity to be heard, to grapple with the existential plight, and to have syndromes of psychiatric diagnosis treated. Full treatment of MDD and anxiety disorder should also help to alleviate symptoms of hot flashes, insomnia, and fatigue. Antidepressant medications should be used methodically. Since response may take several weeks, how long the patient has

taken a specific dose of antidepressant should be noted. If a benefit does not occur after 1 or 2 months, the regimen should be adjusted. In those women taking tamoxifen, antidepressant medications with less cytochrome P450 2D6 inhibition would be the first choice.

Expert psychopharmacological care should be augmented by appropriate cognitive behavioral, individual, or group treatments. For those who do not require the best specific treatments for psychiatric syndromes, coping strategies are strengthened by access to psychoeducation, relaxation, and expert group or individual interventions tailored to the treatments for best cancer care.

MDD is a relapsing syndrome with grave morbidity and mortality that must occur in some women who are treated for breast cancer [78]. Without breast cancer, it has a lifetime prevalence of 16.2 % and 12-month prevalence of 6.6 % in adults, more common in women than men, with a risk ratio of 1.7–1.0 over a lifetime [79]. Risk factors include personal or family history of depressive disorder, prior suicide attempts, lack of social supports, stressful life events, and current substance abuse. It is worth taking note of these risk factors when considering which women with breast cancer need surveillance for depression. We are bound to treat what is serious and treatable. Screening for depressive symptoms, for instance, with the Patient Health Questionnaire (PHQ-9), calls attention to the possibility of depression even when patients are quiet about their symptoms. The screen begins a discussion that can lead to appropriate treatment and better quality of life. Collaborative care programs in cancer centers that screen for depression, treat and assess outcome so that depression does not compromise oncological treatment in cancer patients have made a difference proven in multiple controlled studies [80].

Most patients with breast cancer do not develop MDD, but the adjustment to the diagnosis, hormonal changes associated with menopause and further antiestrogen treatments cause dysphoria, sleep disruption, fatigue, poor concentration, and anxiety. Some women are more susceptible to these hormonal changes than others. Some women have a history anxiety disorder that adds to their difficulty coping with medical illness. Psychosocial interventions help patients to adjust to the uncertainty of cancer, the loss of fertility, and body image. The best psychosocial interventions for breast cancer patients should include optimal treatment for MDD.

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