Women’s Mental Health: Depression and Anxiety

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Mental disorders affect about one in four adults annually, or 57.7 million people when applied to the 2004 United States census population, and are the leading cause of disability in the United States and Canada for persons aged 15 to 44 years.¹ The Global Burden of Disease study revealed that mental illness, including suicide, accounts for greater than 15% of the burden of disease in established market economies, which is more than the disease burden caused by all cancers.¹ Many people suffer from concurrent mental disorders, with nearly half meeting the criteria for two or more disorders. The severity of a mental disorder is strongly related to comorbidity (the presence [or effect] of one or more disorders or diseases in addition to [or upon] a primary disease or disorder), meaning that a disorder is often more severe if comorbid conditions exist.¹ Depression and anxiety often present together and are examples of such comorbid conditions.¹–³ About one-half of those with a primary diagnosis of major depression also have an anxiety disorder. This comorbidity is so pronounced that some investigators have theorized these disorders as stemming from similar causes.³

But what is unique about women’s mental health? Gender. Sex ratios for selected mental disorders such as major depressive disorder, anxiety disorder, posttraumatic stress disorder, seasonal affective disorder, and eating disorders are much higher in women than men.⁴ Women are more likely than men to have severe depressions and to relapse, with biologic differences in hormone profiles affecting mental health disorder risks and symptoms, the course of those disorders, and recovery.³–⁵ The female to male ratio of depression at puberty rises from 1:1 to 2:1, pointing to estrogen and progesterone and their known influences on brain function and stress response as culprits.⁴ Women also exhibit an increased vulnerability to depression during times of reproductive endocrine change such as in premenstrual, postpartum, and perimenopausal periods.¹,⁴ Sex-based differences in the size and structure of the human brain, with men having larger brains and women having lighter, more complex brains and

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proportionately larger frontal lobes (which function in socialization, judgment, memory, and language), may also contribute to the differential presentation in women.4

In 1 year, about 7% of Americans will suffer a mood disorder, with unipolar major depression ranking first in causes of disability worldwide.3 Women between the ages of 18 and 45 comprise the majority of those with major depression.5 Anxiety disorders are the most prevalent mental disorder in adults, and affect twice as many women as men.3 In the United States, 1-year prevalence rates for all anxiety disorders among adults aged 18 to 54 years exceeds 16%, and there is significant comorbidity with mood and substance abuse disorders.3

The cause of mood and anxiety disorders is not precisely known, but may be triggered by stressful life events and enduring stressful social conditions, and are affected by biologic, genetic, and psychosocial factors such as brain chemistry, hormonal balance, socioeconomic status, support network, diet, premorbid medical conditions, cognition, personality, and gender.3

In addition to depression and anxiety existing comorbidly and along with other mental disorders, mental disorders have common comorbidity with somatic illness, including diabetes mellitus, human immunodeficiency virus/AIDS, ischemic heart disease, stroke, cancer, chronic lung disease, arthritis, Alzheimer disease, and Parkinson disease.3 Although other mental disorders exist, this article focuses on depression and anxiety in women, and other conditions comorbid with depression or anxiety: cardiac disease, obesity, vitamin D deficiency, and irritable bowel syndrome.

DEPRESSION

Depression is the most common mental illness experienced by women.7 The lifetime prevalence of depression in women is about 21% compared with 13% in men, and it is the second leading cause of disease burden for women in the United States,2 with rates on the rise:2,7 women today have a 10 times greater chance of suffering from depression than their grandmothers did.2 The risk of depression increases as women age,3 and anxiety symptoms are present in about 58% of depressed outpatients.2 The course of depression across the life span is marked by recurrent episodes of depressive symptoms followed by periods of remission, and the course of depression tends to be more chronic in late life than in younger adults.3 For some, an initial episode of major depression will evolve over time (with remissions and recurrences) into unipolar major depression, whereby each new episode confers new and more severe risks of chronicity, disability, and suicide.3 Major depression is associated with considerable impairment in functioning, comparable to and sometimes worse than that experienced by patients suffering from a variety of chronic medical conditions.7 One study reported that depressed outpatients function at lower levels than outpatients with any other illness except cardiac illness.5

Depression has many forms including major depressive disorder, dysthymic disorder, psychotic depression, postpartum depression, and seasonal affective disorder, and is characterized by persistent sadness, anxiousness, hopelessness, guilt, worthlessness, irritability, restlessness, loss of interest in activities or hobbies, fatigue, difficulty concentrating, impaired memory and decision making, insomnia or hypersomnia, overeating or appetite loss, suicidal ideation or attempts, or persistent aches or pains, headaches, cramps, or digestive problems that do not ease with treatment.1 Symptoms interfere with normal functioning in daily life, and persist for a matter of months to years.1 Ten to fifteen percent of patients formerly hospitalized with depression commit suicide, with major depressive disorder accounting for 20% to 35% of all deaths by suicide.3
The greatest risk factor for a future depressive episode is a past depressive history. Women who have a history of depression are nearly five times more likely to have a future episode of major depressive disorder, with the risk of recurrence increasing with each episode, and an association with a stressful life event becoming progressively weaker with each new depressive episode.

Treatment of depression most often includes pharmacologic agents in conjunction with cognitive-behavioral therapy or interpersonal therapy, the combination proving important for full recovery and preventing relapses. However, an even more aggressive and comprehensive program that includes dietary and lifestyle changes including regular exercise and sleep, a diet high in w-3 fatty acids, tryptophan, folic acid, vitamin D, and vitamin B complex, exposure to bright light, spiritual “therapy,” and complementary and alternative medicines like acupuncture, may bring about even more thorough and long-lasting recovery.

ANXIETY

Anxiety disorders, the most frequently occurring mental disorders, are diagnosed twice as often in women, and encompass a group of conditions that share extreme or pathologic anxiety as the principal disturbance of mood or emotional tone. Categories of anxiety disorder include generalized anxiety disorder, panic disorder, agoraphobia, specific phobia, social phobia, obsessive-compulsive disorder, acute distress disorder, and posttraumatic stress disorder. Presentation of anxiety disorders, in general, include a surge in heart rate, sweating, tensing of muscles, worry, easy fatigability, poor memory or concentration, insomnia, irritability, compulsive behaviors, dissociation, and somatic symptoms. What the myriad of anxiety disorders have in common is a state of increased arousal or fear, often occurring with no immediately recognizable external stressor. Anxiety is often characterized as “the extreme of normal fear,” although some investigators theorize that anxiety is born of a different process than a continuum of severity. Anxiety disorders often have an early age of onset, are chronic, have high rates of relapse and recurrence, and the rate of comorbid anxiety in suicide is likely underestimated. Panic disorder and agoraphobia, in particular, are associated with an increased risk of attempted suicide.

Anxiety disorders are strongly and independently associated with chronic medical illness, low levels of physical health-related quality of life, and physical disability. Various anxiety disorders have shown greater association than depression with 4 chronic physical disorders, namely hypertension, arthritis, asthma, and ulcers, and convincing evidence exists that anxiety is associated with high rates of medically unexplained symptoms and increased use of health care resources.

Similar to depression, treatment often consists of a combination of medications and psychotherapy. Outcomes are also likely to be improved if dietary and lifestyle changes are incorporated into one’s daily agenda.

DEPRESSION AND ANXIETY IN CHILDHOOD AND ADOLESCENCE

Mood disorders are one of the most impairing classes of emotional and behavioral disturbances in youth, causing problems in social, academic, and interpersonal functioning. Depressive symptoms are normative in children and adolescents, with most of these populations reporting depressive symptoms at some point before adulthood. Nondiagnostic levels of depressive symptoms occur at high rates, with point prevalence estimates ranging from 20% to 30% in adolescents. Before puberty, boys and girls are equally likely to develop depressive disorders but by age 15 years, girls are twice as likely as boys to have experienced a major depressive disorder.
Diagnosis-level depressive disorders have a point prevalence of 2.8% for children younger than 13 years and 5.6% for 14- to 18-year-olds.\textsuperscript{11} Children aged 8 years and younger show rates of less than 1%.\textsuperscript{11} Depression in childhood often persists, recurs, and continues into adulthood, especially if untreated, and is a strong predictor of more severe illness in adulthood.\textsuperscript{1}

As with the adult population, anxiety is the most common co-occurring disorder with mood disorders in adolescents, primarily panic and generalized anxiety disorder, with a lifetime prevalence of anxiety of up to 75% in depressed adolescents.\textsuperscript{11} Other commonly occurring comorbid conditions with childhood depression are disruptive behavior disorders, such as conduct disorder and attention-deficit/hyperactivity disorder (14%–36%), and substance abuse (45%–50%).\textsuperscript{11} Depression in children also has several common occurring somatic complaints, such as sleep difficulties, appetite and subsequent weight changes, headaches, chronic back or chest pain, gastrointestinal difficulties, decreased libido in adolescents, generalized complaints of not feeling well, aching extremities, excessive fatigue, and dizziness.\textsuperscript{11}

Whereas diagnostic criteria are the same for children as adults, depressive symptoms can present differently in children. For example, with major depressive disorder in children, disruptiveness may be more easily expressed than internal emotions, so that internalized problems such as depression may be overlooked, with attention focused on the outward behavior.\textsuperscript{11} Irritability may also present more commonly than depressed mood or sadness in children. Children often use language to reveal inner thought processes, such as feelings of worthlessness, and a negative view of the world and of the future.\textsuperscript{11} The most commonly displayed emotions by depressed children are irritability, indifference, lack of cooperation, and disinterest.\textsuperscript{11}

Although anxiety disorders are one of the most prevalent categories of pediatric psychopathology,\textsuperscript{12} classifying the disease process of anxiety is controversial; some investigators theorize the disorder as existing on a continuum of normal fear whereas others propose that anxiety represents a different neurologic process altogether.\textsuperscript{10} Diagnosis of anxiety in childhood and adolescence is controversial too, due to disagreement over what constitutes normal versus pathologic childhood behavior, difficulty in assessing distress in children, and lack of clear, empirically valid diagnostic criteria.\textsuperscript{10}

Childhood prevalence studies of being diagnosed with any anxiety disorder report that 3-month estimates range from 2.2% to 8.6% and 6-month estimates range from 5.5% to 17.7%.\textsuperscript{12} When ascertained retrospectively, lifetime prevalence rates reportedly range from 8.3% to 27%.\textsuperscript{12} In youth diagnosed with generalized anxiety disorder (GAD), more than one associated symptom is usually endorsed (although only one associated symptom of restlessness, fatigue, difficulty concentrating, irritability, muscle aches or tension, or sleep difficulties is required for diagnosis), with restlessness the most common and muscle tension the least common.\textsuperscript{12} Because of high comorbidity rates of generalized anxiety disorder with depression, it is speculated as to whether the two are distinct disorders.\textsuperscript{12} The terms “sequential comorbidity” and “cumulative comorbidity” have been used to describe the relationship between the two disorders, depending on whether they occur one after the other (usually GAD being diagnosed first),\textsuperscript{11} or occur during a lifetime but not in a simultaneous manner.\textsuperscript{12}

Although little is known about the antecedents and determinants of childhood anxiety disorders, the etiology of depression in children is often approached from a biopsychosocial framework.\textsuperscript{11,12} Treatment for both disorders is often a combination of medications and psychotherapy, which have shown substantial progress in recent years.\textsuperscript{10–12}
Nurses are often the first line of medical contact for children, whether in school or a primary care setting. By understanding how depression and anxiety present differently in children and adolescents behaviorally, cognitively/verbally, and with somatic symptoms, a nurse may decrease the amount of time between a child presenting with a complaint and receiving proper diagnosis and treatment of the problem.\textsuperscript{11,12}

MENSTRUATION-, PREGNANCY-, AND MENOPAUSE-RELATED DEPRESSION AND ANXIETY

Premenstrual syndrome (PMS) is a medically unexplained disorder that presents with physical, psychological, and behavioral symptoms during the luteal phase of the menstrual cycle and typically resolves after the onset of menstruation.\textsuperscript{13} Mild symptoms are common, occurring in approximately 75% of women of reproductive age,\textsuperscript{13} with clinical prevalence of PMS between 19% and 30%,\textsuperscript{14} and up to 8% of women experiencing a form of PMS extreme enough to severely disrupt normal functioning, possibly resulting in suicidal ideation or attempt.\textsuperscript{13} This most severe variant of PMS is termed premenstrual dysphoric disorder, which presents with at least one mood symptom (typically low mood, tension, anger, irritability, or mood swings) and suffering physical or psychological symptoms in most menstrual cycles in the past year.\textsuperscript{15,16} The most frequently reported symptoms of PMS are irritability, depression, fatigue, water retention, weight gain, breast tenderness, headaches, abdominal cramps, and mood swings.\textsuperscript{17}

Severe PMS symptoms most commonly appear in the late second decade of life, and may be associated with a history of major depressive disorder and anxiety disorders.\textsuperscript{17} In a 2007 study, symptom reporting for PMS was related to depression among women exposed to cigarette smoke, reflecting the strong correlation between cigarette smoking and lifetime prevalence of depression.\textsuperscript{17} In a perimenopausal cohort, PMS symptoms were reported by 26% of depressed women compared with only 9% of nondepressed women.\textsuperscript{17} Increasing age has been associated with a decreased reporting of premenstrual anxiety, whereas caffeine intake shows a positive association with premenstrual anxiety.\textsuperscript{17}

Current treatment relies primarily on self-management, dietary modifications including vitamin supplementation, exercise, stress management, and cognitive-behavioral therapies. Women who are unable to adequately control symptoms through lifestyle changes may benefit from prescription medications.\textsuperscript{15,16}

Ante-, peri-, and postpartum depression occur in 10% to 20% of women, with rates of depression increasing in the last 2 trimesters of pregnancy up to 51% in the general population of pregnant women.\textsuperscript{18} Women are at greater risk of developing depression in the postpartum period than at any other time in the life cycle,\textsuperscript{19} and postpartum depression is considered the most common postdelivery complication of childbirth.\textsuperscript{20,21} Women with postpartum depression may be greater than four times as likely to screen positive for depression 4 years later than controls who were not depressed postpartum.\textsuperscript{20} Postpartum depression may affect the mother’s physical health,\textsuperscript{18–20} the physical and emotional health of the offspring,\textsuperscript{18–21} and that of family members.\textsuperscript{3,19} Antenatal predictors of postpartum depression include antenatal depression (a 6.5-fold increase in risk)\textsuperscript{18} or anxiety, previous infertility,\textsuperscript{22} past history of psychiatric illness, lack of social support, and stressful life events.\textsuperscript{20}

Depression occurs in about 20% and up to 50% of pregnant women,\textsuperscript{18} with women particularly vulnerable to depression and anxiety if they have high-risk pregnancies or are put on bed rest.\textsuperscript{23} Women with antenatal depression are less likely to attend regular prenatal visits, follow prenatal advice, including taking supplements, and are more likely to engage in fetal abuse (such as physical assault by punching the
pregnant abdomen, or engaging in risk behaviors like tobacco, alcohol, or drug use).\textsuperscript{18} Stress and depression increase maternal serum corticosteroid and catecholamine levels, which are suspected of decreasing placental blood flow, which may in turn induce fetal stress and cause fetal brain and heart rate changes.\textsuperscript{18} Depression has been positively associated with increased uterine irritability, pregnancy-induced hypertension, preeclampsia, antepartum bleeding, decreased uterine artery blood flow, preterm delivery, increased planned cesarean section, and epidural anesthesia.\textsuperscript{18} Babies of depressed mothers are at higher risk of lower Apgar scores, less breastfeeding, failure to thrive, and increased admissions to neonatal intensive care.\textsuperscript{18}

Although it is important to screen high-risk women for depression before, during, and after pregnancy, the high prevalence and deleterious effects of depression provide strong evidence for universal screening.\textsuperscript{18,19} In screening for postpartum depression, when contact with the health care system might afford the best results in terms of identifying and responding to health needs, “crucial” moments have been proposed as at 6 hours, 6 days, 6 weeks, and 6 months postdelivery, loosely interpreted.\textsuperscript{19} Nursing care, including home visits, enjoys a strong position in the assessment and detection of depression, education of coping skills, and referrals to appropriate adjunct health care workers to remediate depressive symptoms and their consequences.\textsuperscript{19}

As in pregnancy, the menopausal transition is a natural life event that is sometimes marked by depression and anxiety. Whereas anxiety disorders in the general United States population have about a 26\% prevalence, that prevalence is higher in women and increases significantly in women, but not in men, at midlife (after age 45), with reports of anxiety, stress, and tension common during menopause.\textsuperscript{14} Persistent anxiety has been shown to increase during the menopausal transition independently of depressive symptoms.\textsuperscript{14} A vulnerability to anxiety symptoms was found in naturally menopausal women who had premenstrual syndrome (2 times greater risk of anxiety), high perceived stress (40\% greater), and a history of depression (2 times greater).\textsuperscript{14} Greater anxiety symptoms have also been reported in women with early bilateral oophorectomy, sexual dysfunction, and lapses in physical activity in the early postmenopausal period, and have been strongly linked with both number and severity of hot flushes.\textsuperscript{14}

Regarding depression during menopause, many theories have been developed and tested over the years, and there remains a controversy.\textsuperscript{24–26} The research clearly shows that most women do not develop depression as they transition into menopause; however, in a subset of women an increased risk for developing major and minor depressions during the menopausal transition exists.\textsuperscript{24} Although menopause has been identified as an independent risk factor for depression at midlife, a past history of depression, whether related to reproductive endocrine change or not (ie, postpartum depression) may\textsuperscript{26} or may not\textsuperscript{24} predict the onset of depression during the menopausal transition. A growing body of evidence suggests that the risk of clinical depression and depressive symptoms increases during the perimenopause in relation to hormonal changes, but then decreases in the postmenopausal period.\textsuperscript{14,25} Depression in women around the time of menopause is seen most often, and with greater severity, in the 2 or 3 years before menstruation stops.\textsuperscript{25} The latest research indicates that developing depression during the menopausal transition contains pieces of a continuum of risk (history of postpartum depression, previous stressful events) and evidence of a critical window of vulnerability during this time of life (menopause-related sleep problems, vasomotor symptoms, and health indicators).\textsuperscript{26}

Treatment of depression in menopause most often includes antidepressant medication, psychotherapy, or a combination of the two, similar to the treatment of
depression in other periods of life. However, a recent study suggests the use of high-dose estrogen in the treatment of “the triad of hormone-responsive depressive disorders,” meaning when premenstrual depression, postpartum depression, and depression in the years leading up to menopause occurs in the same vulnerable women. The recommended dose for perimenopausal, but not postmenopausal, depression is transdermal estrogen patches of 200 μg.

DEPRESSION AND ANXIETY COMORBIDITY WITH SOMATIC ILLNESS

Cardiovascular disease (CVD) has been the leading cause of mortality in the United States for over 100 years, with one in three American adults now dying from one or more types of CVD, accounting for 1 out of every 2.8 deaths in 2004 and more deaths each year than cancer, chronic lung disease, accidents, and diabetes mellitus combined. Risk factors for CVD that are modifiable include hypertension, diabetes mellitus, hypercholesterolemia, elevated body mass index, unhealthy diet, and sedentary lifestyle. Chronic stress, depression, and anxiety also increase the risk of developing CVD and complicate recovery following acute cardiac events.

Depression has long been noted in occurrence with CVD and cardiac death, but the association has been validated scientifically only in the last 15 years or so. Major depression in hospitalized patients with coronary artery disease have reported prevalence of between 17% and 27%, and is both a risk factor for incident CVD and a predictor of poor outcome in cardiac patients. Depression is strongly associated with increased rates of serious cardiac events, cardiac mortality following myocardial infarction (MI), unstable angina, and coronary artery bypass surgery.

Although less well studied than depression, emerging data suggest that anxiety is also an important risk factor for incidence and progression of CVD. Considerable covariation between depression, anxiety, and anger/hostility have been found to increase the risk of CVD through the infliction of a shared general distress. However, anxiety symptoms may increase cardiac risk beyond effects of general distress, suggesting anxiety is a core feature of post-MI depression, and worth considering separately from depression and other psychological risk factors to identify patients at risk for depression following MI. General measures of anxiety and psychological distress have been associated with increased rates of 5-year cardiac-related mortality in patients with MI, with one study showing anxiety more strongly related with subsequent cardiac events than depression or hostility. Chronic anxiety, phobic anxiety, and posttraumatic stress disorder have shown the strongest associations with CVD.

The recent and widely publicized Nurses’ Health Study results, however, lend further evidence to the seriousness of depression and its association with fatal cardiac events’ outcomes. In this study, women without known cardiovascular disease at baseline and with symptoms of depression had significantly increased risks of 3 coronary heart disease (CHD) events (sudden cardiac death, MI, and fatal CHD), the strongest association seen with fatal CHD, with a relative risk of 1.49 (confidence interval [CI]: 1.11–2.00, \( P \) trend = .007). Depressive symptoms were also associated with multiple risk factors for CHD, including history of hypertension, diabetes, high cholesterol, smoking, obesity, being less physically active, and having lower ω-3 fatty acid intake. Clinical depression or use of antidepressant medication showed a 2.33-fold risk of sudden cardiac death (SCD) (CI: 1.47–3.70, \( P < .001 \)), indicating clinically relevant depression is a stronger predictor of SCD than nonclinical depressive symptoms. When examined separately, neither depression score nor antidepressant use was significantly associated with nonfatal cardiac events. The investigators pose an explanation for fatal outcomes as possibly due to an increased risk of
ventricular arrhythmias with the use of antidepressant medication. This theory was supported in their data by an elevated risk for SCD in association with antidepressant use, but not with more severe depressive symptoms, and the risk was not reduced when multiple coronary risk factors were adjusted for.

Irritable bowel syndrome (IBS) is one of the most common and well-studied functional gastrointestinal disorders, affects an estimated 10% to 25% of the population, and occurs in women twice as frequently as men. Stress reactivity is considered an important nondiagnostic feature of IBS and is characteristic of other disorders overlapping with IBS, such as anxiety and mood disorders. There is a strong association between IBS and psychiatric diagnoses, with between 54% and 94% of treatment-seeking patients with IBS having a mood or anxiety disorder diagnosis. When psychiatric disorders coexist with IBS, gastrointestinal symptoms are typically more severe and disabling, and those with panic disorder may be up to 5 times more likely to exhibit IBS-like symptoms than those with no psychiatric diagnosis. Up to one-third of IBS patients have posttraumatic stress disorder.

Medical literature shows a strong relationship of IBS with both anxiety and depression, and is sufficiently specific to differentiate a higher frequency of IBS symptoms among those with panic disorder, GAD, and major depressive disorder versus social anxiety disorder, specific phobia, and obsessive-compulsive disorder. Because of the high coincidence between IBS and depression, the role of serotonin in IBS has been widely studied, with antidepressant use in the treatment of IBS more effective than other IBS-specific medications. Cognitive-behavioral therapy has also been instituted with some benefit which, along with antidepressant medicine, supports the “brain-gut disorder” model of disease for IBS.

Obesity in United States adults has increased from about 23% in 1990 to 31% in 2000, with two-thirds of the United States adult population either overweight or obese (i.e., with a body mass index [BMI], calculated as the weight in kilograms divided by height in meters squared, $\geq 25$). Obesity is associated with increases in risk for numerous health outcomes including cardiovascular disease, type 2 diabetes, and some cancers, as well as personal dissatisfaction with one’s physical appearance. Obesity also raises the risk of psychopathology among women at clinical and subclinical levels, with the odds of a major depressive episode in the past year increasing by 37% among obese women, with a 22% increase in odds for each 10-unit increase in continuous BMI. Odds for lifetime prevalence of anxiety disorders and mood disorders increases by 34% in obese women when compared with nonobese women.

Long-term impact of obesity on GAD and major depressive disorder (MDD) was found independent of other more substantial risk factors implicated in psychopathology. Obesity has been shown to predict MDD and anxiety, with increasing cumulative stress burden and poor self-concept eventually lowering the threshold at which stress exposure may precipitate depression. A step-wise increase has been seen mutually in BMI and depression, with increasing severity of depressive symptoms having a strong association with higher risk of obesity, and increasing BMI being strongly associated with higher risk of depressive disorder. These associations seem to be consistent across demographic groups and not confounded by age, race, marital status, educational attainment, or tobacco or antidepressant use. Significantly lower activity levels and higher caloric intake also show consistent association with depression.

Vitamin D deficiency has been associated with mood disorders, including MDD and premenstrual syndrome, anxiety disorders, and reduced cognitive function. In an intervention study, overweight and obese subjects tested low in serum 25(OH)D (vitamin D) and higher in depressive scores than those with higher vitamin D levels.
Depressive scores improved after high-dose vitamin D supplementation over a 1-year period of time. The improvement in depressive scores appeared unrelated to age and BMI.

SUMMARY

Depression and anxiety in women across the life span pose a significant burden to the women themselves as well as to the public health system, and costs United States society tens of billions of dollars each year. Depression and anxiety predispose a person to other physical ailments, and physical morbidity can trigger depression or anxiety, often worsening distress. Depression and anxiety may occur in tandem, and during particularly vulnerable periods in a woman’s life. Mood and anxiety disorders often present in association with hormonal/endocrine changes such as during puberty, the menstrual cycle, pregnancy, and the menopausal transition. Awareness of issues specific to the presentation of depression and anxiety in women, the comorbidity of psychological and physical disorders, special coping mechanisms women employ in self-management, and awareness of medical assessment and treatment, including complementary and alternative medicine, can result in early detection, education, and intervention, as well as close follow-up to reduce stigma, suffering, and adverse health outcomes in women.

REFERENCES