Women and Depression: A Phytotherapist's Approach

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Depression, anxiety, and similar disorders are the most commonly encountered women's health problems in Western countries with women experiencing higher rates of depression than men. Alternative and conventional medical practitioners are consulted for the treatment of mild to moderate and even severe depression perhaps more than any other mood and affective disorder, mood disorders being the primary emotional imbalance encountered in clinical herbal practice. The medical definition of depression provides a narrow parameter against which a wide range of human sadness and grief is measured and categorized. This unfortunately may lead to the inappropriate labeling, medicating, and potential stigmatization of many who appear to fit the diagnosis of depression and the marginalization and exclusion from diagnosis of those who do not necessarily fit neatly into this category, yet who truly suffer from this malady of emotion. The causes of depression are multifactorial. A truly comprehensive holistic approach must consider physical pathologic etiologies (e. g., endocrinologic dysregulation) as well as social, emotional, and psychological factors ranging from availability of support networks to issues of self-esteem, gender issues faced by women in contemporary times, socioeconomic factors, as well as diet, nutrition, and exercise levels. This article addresses many of these multifactorial issues, providing the reader with both evidence-based and traditional information on the use of complementary and herbal therapeutic approaches to depression in women.

BACKGROUND

Depression is perhaps the most common psycho-emotional condition faced by Americans today, affecting nearly 10% of all patients seen in nonpsychiatric settings and nearly 50% of all patients seen in outpatient and private psychiatric settings (Beers & Berkow, 1999). Women experience higher rates of depression than men do, with the most common forms of depression occurring in a 2:1 female to male ratio. Depression, anxiety, and similar disorders are the most commonly encountered women's health problems in Western countries (Trickey, 2000). Alternative and conventional medical practitioners are consulted for the treatment of mild to moderate, and even severe, depression perhaps more than for any other mood or affective disorder. Mood disorders are the primary emotional imbalance

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encountered in clinical herbal practice (LowDog, 1997), and psychosocial factors are now accepted as a primary cause (Trickey, 2000).

The clinical definition of major depression according to the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV*) (American Psychiatric Association, 1994) is the presence of five or more of the following symptoms, present for at least 2 weeks, representing a change from previous mental or functional status and including depressed mood or anhedonia:

1. depressed mood for most of the day, nearly daily, as self-described or described by others;
2. significantly decreased interest or pleasure in activities for most of the day, nearly daily;
3. feelings of guilt or self-worthlessness;
4. significant weight loss without diet, weight gain, or decrease or increase in appetite;
5. insomnia or hypersomnia nearly daily;
6. psychomotor agitation or retardation as defined by others (not just a subjective sense of lethargy or restlessness);
7. daily fatigue or low energy;
8. daily feelings of decreased ability to concentrate, indecisiveness nearly daily; and
9. recurrent thoughts of suicide.

Central to the diagnosis of major depression is that the symptoms cannot be accounted for by the effects of medications or bereavement and the symptoms cause significant social distress or impairment. The *DSM-IV* refers to milder, chronic depression, lasting 2 years or longer, as "dysthmic disorder."

Depression is a more broadly used term in the general population, connoting a range of self-described symptoms including "feeling blue," an inability to feel joy or happiness (anhedonia), a sense of emotional weightiness, an inability to motivate oneself to perform daily tasks and responsibilities, inability to concentrate, a feeling of lack of inspiration or creativity, a sense of withdrawal, poor self-esteem and feelings of worthlessness, and a feeling of hopelessness. Many recognize that sleep disturbances (either insomnia or hypersomnia), anxiety, stress, memory loss, changes in eating patterns, decreased immune response with greater susceptibility to colds and infection, and loss of self-esteem are symptoms of depression. Others come to the alternative practitioner seeking treatment for these related symptoms, not recognizing that they are indicative of an underlying mood disorder.

ARBITRARY PARAMETERS?

The medical definition of depression provides a narrow parameter against which a wide range of human sadness and grief is measured and categorized. Unfortunately, this may lead to the inappropriate labeling, medicating, and potential stigmatization of many who appear to fit the diagnosis of depression and the marginalization and exclusion from diagnosis of those who do not necessarily fit neatly into this category yet who truly suffer from this malady of emotion.

Medical literature further differentiates what is considered true depression from a grief reaction. A grief reaction is considered to be a temporal, self-limiting condition that occurs as a result of an immediate loss as is often associated with a trauma, for example, a miscarriage or a death in the family. In chronic depression, symptoms such as disturbances in sleeping patterns and changes in appetite, energy levels, and mood persist over time. In addition,

with a grief reaction, self-esteem is not considered to be completely damaged, whereas with chronic depression, levels of self-esteem are considered to be significantly affected. Grief that persists longer than 90 days is now considered appropriately diagnosed as depression. Grief and sadness, however, do not conform to arbitrary time frames, nor can one define for individuals how much grieving is considered "normal." For example, for some women, a miscarriage or infertility problems may lead only to a brief period of grief response. However, for many women, the experience of miscarriage, particularly when habitual, does erode self-esteem and may lead to chronic, subclinical depression that affects many aspects of daily functioning including the ability to be around other people's babies or to enjoy a healthy sexual relationship. Although depression can certainly be categorized by scale, the alternative therapist does not only limit the definition of depression to a label from the *DSM-IV* but also looks to the patient's self-definition of mood and provides appropriate therapeutic protocol.

FEMINISM, HOLISM, AND WOMEN'S DEPRESSION

Despite the continued underrecognition and underdiagnosis of depression in women, a woman is more likely to be hospitalized for depression than breast cancer during the course of her lifetime (Brandis, 1998). Women between the ages of 20 and 45 are most prone to depression; the incidence of the condition declines with age, and the prevalence of depression at increasingly younger ages is on the rise (Peden, Hall, Rayens, & Beebe, 2000).

Factors that contribute to the high prevalence of depression in women include but are not limited to family and work roles; victimization; variations in personality and adaptability; reproductive- and life cycle–related events such as pregnancy, childbirth, and menopause; and early childhood parental loss (American College of Obstetricians and Gynecologists, 1993). Furthermore, stress, nutritional deficiencies, thyroid conditions, chronic pain, and treatment for such diseases as cancer can lead to or exacerbate a tendency to depression. Heredity is considered a significant predisposing factor in affective disorders. Depression is frequently a multifactorial condition, with several concurrent factors that culminate in the overall mood disturbance and a condition that is frequently observed by obstetricians and gynecologists (American College of Obstetricians and Gynecologists, 1993).

The stigmatization surrounding the use of the label *depression* has to some extent decreased with greater public awareness that depression is considered a medical condition and not a character flaw or weakness. Also, the commercialization and widespread use of antidepressant medications, as evidenced by advertisements on television and in magazines, has brought depression "out of the closet" as a prevalent health condition. Prozac is "chic." Unfortunately, however, the definition of depression as a medical condition has led to a focus on medication as a primary treatment, often to the exclusion of improving other factors such as nutritional status, exercise levels, self-esteem, and relationships.

According to scholars in women's studies such as Belenky, Gilligan, Rich, and others, relationship is a fundamental aspect of female biology and social experience. The social fabric of a woman's life is central to her experience of wellness. Similarly, self-esteem and security contribute to wellness. Feminist literature provides a wealth of documentation of the struggles faced by women in this society, ranging from the prevalence of rape (a woman is raped every 9 seconds in the United States) and sexual abuse (1 in every 4 women is the victim of sexual abuse) to milder forms of discrimination and victimization. Add to this high rates of divorce and single motherhood; lower pay for the same jobs; difficulties in arranging

child care and thus increased job stress; the threat of breast cancer, osteoporosis, and heart disease as they age; the nutritional, hormonal, and social impact of normal experiences such as menstruation, childbearing (particularly obstetric intervention and surgical procedures at birth; Fisher, Astbury, & Smith, 1997), and menopause; and a society that pathologizes and devalues these powerful feminine biological forces, and we begin to see that it is not surprising that some degree of depression is nearly ubiquitous among women.

Women face conflicting roles in this culture, pressured to be productive and successful in the workforce while remaining supportive, nurturing, and accessible in the home. Women struggle tremendously with feelings of guilt and failure: A successful career women worries that she has not been a "good enough" mother, whereas a successful homemaker worries that she has not "done enough" outside the home and struggles with feelings of personal frustration. Women who are mothers may also struggle with extended periods of isolation as they are raising children in a society that at once deifies and ignores motherhood. Women struggle with their physical self-image and health needs in a society that glorifies the thin, tall model. The healthy woman is encouraged to resort to extreme dieting to meet this unrealistic standard. As one astute writer put it, perhaps the most positive intervention for women with depression is for care providers to "take seriously the pressures on women to be everything to everyone and no one at all" (Brandis, 1998).

Furthermore, American culture marginalizes and pathologizes grief and sadness. Unlike various Native American cultures that provided ample opportunity for women to go to the "moon lodge" during their menses as a time to be away from the work of the tribe and to be with other women; or the ritual of the sweat lodge or vision quest that provide opportunity for reflection, solitude, finding core meaning in life, and "crying for a vision" (LowDog, 1997); or the Navajo (Dine) community tradition of the Monsterway and Blessingway for clearing out "bad spirits" and welcoming in "helping spirits" when a member of the tribe is experiencing a major or difficult transition, our society provides no opportunity to face and challenge "our inner demons" or our own human darkness and vulnerability. We have overlooked ritual as a powerful tool in the healing repertoire, providing us with symbolism, meaning, and tools for coping with sadness, grief, and loss (LowDog, 1997; Noble, 1992). We do not face the night or darkness of our souls as a fact of life: We suppress emotions until they become consuming in the form of chronic depression and we spend billions on antidepressant medications.

PHYSIOLOGIC BASES OF DEPRESSION

Although there are numerous psychosocial factors involved in the etiology of depression, physiologic and pathophysiologic factors should not be excluded or overlooked in the holistic treatment approach. We must find a balance between the biological and psychosocial aspects of this way of being.

In addition to the numerous social pressures faced by women, there is some evidence suggesting that women are more biologically vulnerable to depression than men are and that these biological factors may make it harder for women to rebound from a depressive episode (Beers & Berkow, 1999). Biologically predisposing factors for depression may include the fact that women have two X chromosomes, an important factor in bipolar disease if X linkages are dominant; higher levels of monoamine oxidase (MAO), the enzyme that breaks down neurotransmitters and that has a significant relationship to mood; greater predisposition to thyroid disorders; use of oral contraceptives; and endocrine changes associated with

menstruation and menopause (Beers & Berkow, 1999). Unfortunately, however, "the pathophysiology of depression is not well understood" (LowDog, 1997). It is clear from a review of the medical literature that both nutrition and exercise can play a significant role in the development and treatment of depression (Alpert & Fava, 1997; Benton & Donohoe, 1999; Brown, Shirley-Goldstein, Robinson, & Casey, 2001; Cramer, Nieman, & Lee, 1991; Fox, 1999; Kanarek, 1997; Kelly, 1998; Lombard, 2000; Pronk, Crouse, & Rohaack, 1995; Rogers, 2001).

A considerable amount of research has gone into investigating the role and relationship of neurotransmitters and enzymes involved in neurotransmitter function to depression. The monoamine theory suggests that there is a deficiency of the neurotransmitters norepinephrine, serotonin, and dopamine, with substantial emphasis placed on the role of serotonin (LowDog, 1997) and hence the popularity of selective serotonin reuptake inhibiting medications such as Prozac and Zoloft for treating depression. Serotonin is involved in the regulation of mood, appetite, mental function, sleep, and sexual response. Thyroid malfunction and dysregulation of the hypothalamic-adrenal-pituitary axis is another possible factor in the etiology of depression, seen in more than 50% of people with depressive disorders.

Most women recognize when they are experiencing hormonally related mood changes, most noticeably anger and irritability or depression. Women are most likely to be affected during the premenstrual and perimenopausal periods. Several explanations for hormonally related depression exist. According to Trickey (2000), in addition to the biochemical theories already mentioned, which may also be hormonally induced, there are several additional theories of the hormonal etiology of depression. The theory of estrogen/progesterone ratio imbalance postulates that low estrogen levels in relationship to progesterone leads to dysphoria due to the inhibition of androgens in the brain. Another theory suggests that there may be a decreased response of progesterone receptors in spite of normal progesterone levels due to their being blocked by elevated adrenal hormone production as a result of stress. This last theory is consistent with the pituitary axis theory and hypersecretion of cortisol. Substantial recent research supports the theory that variability in estrogen and progesterone levels has an effect on neurotransmitters and thus mood, particularly during menopause when estrogen levels naturally decline. Furthermore, "stress associated with mood changes can impact on adrenal function and may cause estrogen levels to drop further and aggravate menopausal symptoms" (Trickey, 2001). Estrogen supplementation via hormone replacement therapy (HRT) has led to the improvement of mood and psychological functioning (Boyle & Murrihy, 2001), although it is not without controversy regarding potential health consequences of prolonged HRT use.

Sleep disturbances can have a profound influence on the development of depression, and conversely, depression can dramatically interfere with sleep, thus leading to a vicious cycle. In addition, lack of sleep can aggravate physical discomfort such as chronic pain or increase perceptions of stress, further exacerbating depression.

THERAPEUTIC APPROACHES FOR WOMEN WITH DEPRESSION

Because depression is a multifactorial problem, the treatment of depression must represent not just a pharmacologic approach but also a comprehensive response to the many factors that contribute to the problem. According to LowDog (1997), "Depression is probably a complex interplay of genetics, biochemistry, and both developmental and social factors."

Trickey (2000) suggested the biopsychosocial model for addressing depression from a holistic perspective. This model, as the name suggests, "includes additional societal influences as a holistic attempt to include the complex and interwoven features that may contribute to dysphoria."

The biopsychosocial model is consistent with the holistic philosophy practiced by most Western herbalists. Herbalists have long recognized that humans are multifaceted and that human physiology is a complex result of physical forces acting not in a physiologic vacuum but in an intricate dance that includes human emotion and thought. Thus, our physiology reflects not only independent biological processes but also the landscape that is the human experience. Thus, although the treatment options presented below focus on botanical therapies, they are meant to be a part of a comprehensive and holistic paradigm including appropriate lifestyle changes, increased social support, exercise, and activities that increase a sense of meaning in the patient's life. In fact, the phytotherapist does not limit treatment to the prescription of herbs but approaches health problems from a multimodality perspective.

In contrast with conventional medicine, an essential aspect of herbalism and indeed many holistic therapies and an aspect that is specifically integral to the client with depression is the goal of helping the client find self-empowerment. This involves helping the client not only by providing substances that might improve well-being but also by fostering self-esteem. According to Skiba-King (2001), "Consumers who elect to use natural products are electing to do more than simply use a product. Their choice is an act of self-empowerment." Skiba-King reminded us, as have Fugh-Berman (2000) and others, that botanical therapies are largely unregulated and little is known about the potential for herb-drug interactions, whereas Tinsley (1999) cautioned that psychotropic herbs, which are among the most popular on the market, have the potential for being overused or abused and have the potential for side effects. Therefore, education is necessary and "consultation with a health care practitioner who shares this shift in perspective and who follows the literature is important" (Skiba-King, 2001).

Botanical Therapies for Depression

There is a considerable *materia medica* of herbs that have traditionally been used by herbalists for the treatment of depression and related conditions such as anxiety, chronic pain, insomnia, and cognitive dysfunction. Although only a few of these herbs have been subjected to clinical trials, those that have, such as St. John's Wort (*Hypericum perforatum*), ginkgo (*Ginkgo biloba*), and kava (*Piper methysticm*), have compared favorably to or better than placebos and standard medical treatments or have yielded improvements in the condition being studied. Although herbalists recognize the value of clinical trials to verify efficacy and demonstrate safety of botanical therapies, herbalists also do not discount historical and folk use of herbs when clinical trials are lacking or fail to prove efficacy.

Following is a brief summary of the primary botanicals used by herbalists for treating women's depression, with an emphasis on those botanicals for which there is evidence-based research.

St John's Wort (*Hypericum perforatum*)

The most popular antidepressant herb on the market, St John's Wort, has a long history of use for depression, dating to the Middle Ages when it was used as protection from "evil spir-

its" that were believed to cause abnormal mental states (Trickey, 2001). The name *Hypericum* stems from the Greek word meaning "over an apparition," based on the belief that it caused evil spirits to flee (Linde & Muldrow, 2000; LowDog, 1997; Trickey, 2001). It is currently recommended for the treatment of mild to moderate depression. This herb has some history of use for the treatment of depression in menopausal women, and it may be combined with other herbs such as *Vitex agnus castus* or *Actaea racemosa* (syn. *Cimicfuga racemosa*) for this purpose (Mills & Bone, 2000; Trickey, 2001).

There is a vast amount of literature demonstrating the relative safety and efficacy of *Hypericum* as a treatment for depression, yet the exact mechanisms of action are unknown, though there has been investigation into what are believed to be the active principles hypericin and hyperforin and into the herb's possible actions as an MAO inhibitor and its ability to act on serotinergic pathways (Bone & Mills, 2001; Boniel & Dannon, 2001; Fugh-Berman & Cott, 1999; Gaster & Holroyd, 2000; LowDog, 1997; Trickey, 2001; Upton, 1997; Werbach & Murray, 1994; Wong, Smith, & Boon, 1998). Many of these authors cite studies indicating that St John's Wort has been shown to be better than placebo and at least equal to standard prescription antidepressant medications.

Although few side effects are seen with use of St. John's Wort, it has been shown to cause transient photosensitivity in fair-skinned people (Fugh-Berman & Cott, 1999). This condition disappears within a few days of discontinuation of the product and is generally, though not always, associated with higher than recommended dosages (Fugh-Berman & Cott, 1999). More recently, St. John's Wort has been found to affect the expression of cytochrome P450 (CYP450) and thus lead to interactions with a number of pharmaceutical drugs, most notably cyclosporine (Treasure, 2000). All patient medications should be audited for possible herb-drug interactions before St. John's Wort is prescribed. St. John's Wort should be avoided by those taking medications with a narrow therapeutic index such as anticoagulants, immunosuppressants, and antiarrhythmics (Treasure, 2000). Patients already using prescription antidepressants should also avoid concurrent use of *Hypericum* (Cupp, 1999; Treasure, 2000).

Standard dose is 2 to 5 g dried herb per day, two to three tablets at 1.5 g standardized to contain 0.9 mg total hypericin, or 7.5 to 15 ml of 1:5 tincture daily (Mills & Bone, 2000).

Ginkgo (*Ginkgo biloba*)

Ginkgo does not directly act as an antidepressant herb, but through its action of improving cognitive function and enhancing memory and increasing cerebral blood flow and tissue oxygenation, it may enhance psychoemotional well-being (Boniel & Dannon, 2001; Curtis-Prior, Vere, & Fray, 1999; Mills & Bone, 2000; Werbach & Murray, 1994). In addition, memory loss in perimenopausal women can itself lead to anxiety and depression, and relieving this symptom may thus improve outlook.

Although ginkgo has been associated with few side effects, it has been associated with spontaneous bleeding, both in conjunction with anticoagulant herbs and independently. Therefore, ginkgo should not be used with other anticoagulant therapies, including aspirin, and its use should be discontinued several weeks before any anticipated surgical procedures (Cupp, 1999; Fugh-Berman, 2000; Mills & Bone, 2000).

Standard daily dose is 120 mg of a standardized 50:1 ginkgo extract, corresponding to approximately 4 to 8 g of leaf. This can be taken as a liquid extract or tablet (Mills & Bone, 2000).

Ginseng (*Panax ginseng*)

Ginseng is a highly valued medicinal plant consumed worldwide for its tonic effects. According to Mills and Bone (2000), ginseng "increases vitality and the ability to withstand stress by acting on the hypothalamus-pituitary-adrenal cortex axis; [and] restores and strengthens the body's immune response." It is specifically used to improve learning and memory and to relieve anxiety, debility, and sexual inadequacy (Bone, 2000; Mills & Bone, 2000). Furthermore, ginseng improves exercise stamina, enhances mood, and improves hemoglobin uptake in humans (Bone, 2000). Given these indications, it is reasonable that herbalists regularly use ginseng in the treatment of depression, mainly to treat underlying causes and symptoms such as fatigue, susceptibility to infection, sexual dysfunction, and cognitive impairment.

Although ginseng has a long historical record of safe use, it has recently been shown to decrease the effectiveness of warfarin (Cupp, 1999), and according to Fugh-Berman (2000), it has led to incidence of mania in depressed patients who have combined it with antidepressant medications. Therefore, care should be taken when administering this herb with other medications.

The standard dose of ginseng in traditional Chinese medicine is 1 to 10 g decocted, dried root daily. Western herbalists generally recommend approximately 3 g of dried root or 1 to 6 ml of 1:2 liquid extract daily (Mills & Bone, 2000). It is traditionally used in formulae and frequently combined with licorice root (radix *Glycyrrhiza spp*.). Ginseng is generally prescribed for long-term use, 3 to 6 months, before optimal results are seen. Excessive use of ginseng may lead to overstimulation.

Eleuthero (*Eleutherococcus senticosus*)

Also known as Siberian ginseng because of its similar tonic effects, eleuthero has a significant role to play in the treatment of mild depression and related symptoms including fatigue, susceptibility to stress, decreased immunity, insomnia, and irritability (Mills & Bone, 2000). This author can find no adverse effects reported in the literature. Standard dose is 1 to 4 g daily or 2 to 8 ml daily of 1:2 liquid extract.

Kava (*Piper methysticum*)

Kava shows significant ability to reduce anxiety and to promote deep relaxation and sleep (Boerner, 2001; Cauffield & Forbes, 1999; Mills & Bone, 2000; Trickey, 2001; Wheatley, 2001). Although not directly used for the treatment of depression, kava can reduce stress and chronic pain, thus having an indirect but definite ability to impact depression due to these causes. Kava was shown in one study to be of specific use in the reduction of menopausal anxiety and to "accelerate the resolution of psychological symptoms" when combined with hormonal therapy (DeLeo et al., 2001). Mechanisms of the psychotropic action are directly related to kava pyrones. It is speculated that they have the ability to block the uptake of noradrenaline. The sedative action may be related to an ability of kava pyrones to increase the number of GABA binding sites (Trickey, 2001).

> The official policy of the industry is that further investigation is needed to assess the true potential toxicity of kava kava. Practitioners must make a relative benefit-risk assessment regarding the prescribing or dispensing of kava kava and are further advised to pay close attention to liver-

> specific signs that may arise, and to inform their patients of the same. (R. Upton, personal communication, 2001)

Kava should not be combined with other medications until further evidence is available. Some individuals describe the experience of using kava as "unpleasant" or "numbing"; therefore, it may be advisable to give a small trial dose to identify such individuals.

Standard dose of kava among herbalists is 2 to 5 ml two to three times per day of 1:3 and up to 10 ml of 1:3 tincture for acute anxiety for less than 2 days at a time. Recommended capsule dose is 1 to 2 capsules of 250 to 480 mg kava, not to exceed 400 mg kavalactones daily (Romm & Treasure, 2001).

Valerian (*Valeriana officinalis*)

Well known for its ability to promote sleep and reduce stress, valerian has a long history of safety associated with its use. Relief of stress and insomnia can play a pivotal role in the improvement of depressive symptoms. Few clinical trials appear in the research literature, but according to Fugh-Berman and Cott (1999), valerian appears to be "quite safe" in humans. The greatest complaint most patients will give is regarding its unusual smell, which for some makes use of the plant intolerable. Some individuals will experience a paradoxical effect of stimulation, making it an inappropriate remedy for those with this response using it to treat insomnia; others may experience drowsiness and should avoid driving while using this herb. This author knows of no other known contraindications to use.

Standard dose of valerian is 3 to 9 g of dried root daily or 2 to 6 ml of 1:2 liquid extract or 5 to 15 ml 1:5 tincture per day (Mills & Bone, 2000).

Licorice (*Glycyrrhiza glabra*)

Due to its effects on steroid metabolism and adrenal function, it is postulated that licorice may have adaptogenic effects that make it useful in the treatment of depression (Mills & Bone, 2000). It has certainly demonstrated immunomodulatory capabilities (Mills & Bone, 2000) and may thus be used as a conjunctive herb along with others when there is chronic stress and weak immunity associated with depression. It is contraindicated for those with liver disorders, hypertension, hypokalemia, edema, congestive heart failure, kidney insufficiency, and pregnancy (Blumenthal, 1998). Deglycyrrhizinated licorice, devoid of the compound glycyrrhizhin, associated with mimicking aldosterone and thus associated with the above contraindications, may be used safely with supervision by patients with contraindications to the use of this whole plant.

Standard dose is 2 to 6 ml daily of 1:1 liquid extract (Mills & Bone, 2000).

Vitex (*Vitex agnus castus*)

Vitex, or chaste tree, has gained popularity in recent years for its use in regulating the menstrual cycle. It has been shown to have a dopaminergic effect, which leads to a net reduction of the hormone prolactin, a hormone that when elevated has been associated with premenstrual mood fluctuations (Mills & Bone, 2000; Trickey, 2001). It is also thought to improve relative progesterone deficiency via enhancement of corpus luteal development (Mills & Bone, 2000). However, the exact mechanisms of action of vitex are still unknown. Many women experience noticeable benefit in the reduction of both premenstrual and

perimenopausal stress and depression with its use; however, several herbalists have noted an exacerbation of symptoms, but only rarely. It has been speculated that this exacerbation may occur in women who are already estrogen deficient, and for progesterone dominants, adding vitex aggravates this imbalance. It is considered safe for long-term use; however, it should be used cautiously in adolescents due to potential effects on sex hormones.

Standard daily dose is 1 to 5 ml of a 1:5 tincture, three times daily (Romm & Treasure, 2001).

Cimicifuga (*Actaea racemosa syn Cimicifuga racemosa*)

Black cohosh has received attention for its treatment of perimenopausal symptoms, most notably due to its phytoestrogenic effects. These phytoestrogens, acting weakly to bind with endogenous estrogen receptors, potentially enhance estrogen levels in women who are estrogen deficient and reduce excess endogenous estrogen levels by preferentially binding with these receptor sites. Thus, black cohosh may be thought of as having a normalizing effect on estrogen levels. Furthermore, it is an excellent antispasmodic, facilitating reduction of tension and elevated blood pressure and promoting relaxation and sleep. Combined with its ability to reduce hot flashes and uterine spasms and to serve as a general uterotonic, black cohosh is an excellent addition to formulae for women with menstrual or perimenopausal complaints and depression.

Side effects are not expected when used at recommended doses. Caution should be exercised during pregnancy, and only short-term use may be advisable for adolescent girls.

Standard dose is of 0.5 to 1 g dried root/rhizome three to four times a day or 3.7 to 7 ml 1:5 tincture daily (Mills & Bone, 2000).

Ashwagandha (*Withania somnifera*)

Much like ginseng, eleuthero, and licorice, ashwagandha has adaptogenic effects, supporting the adrenal axis and, with long-term use, reducing the effects of stress. Reducing the stress response can lead to a physiologic reduction of stress hormones that are indicated in depression. It is also a nerve tonic, gentle and mild sedative, and immune tonic. It improves health and stamina when there is debility and nervous exhaustion due to stress. It may be used safely for elderly and pregnant patients and may be useful in the prevention and treatment of cancer (Bone, 2000).

Tang gui (*Angelica sinensis*) and Peony (*Paeonia lactiflora*)

In traditional Chinese medicine, a primary causative factor of depression is considered to be blood deficiency, also symptomized by pallor, fatigue, and weakness. Blood deficiency is exacerbated by the regular monthly loss of blood through menses as well as by childbirth. Formulae for the treatment of deficient blood frequently contain the herbs tang gui (dong quai) and peony. Their actions, in addition to enhancing red blood cell production (Bone, 2000), may be partly estrogenic (Trickey, 2000), although Bone (2000) countered that it may not have any estrogen-like effects on the uterus. Both tang gui and peony have shown demonstrable effects in the treatment of dysmenorrhea, and both are antianemic female tonics. Tang gui is contraindicated where there is tendency to uterine bleeding and should not be used without expert supervision during pregnancy. Peony is a good general antispasmodic and

muscle relaxant, may mildly enhance cognitive function, and has immune-enhancing qualities. These herbs are often combined with *Rehmannia glutinosa*, *Ligusticum*, and *Glycyrrhiza glabra*.

Additional Herbs

Herbalists widely use the following plants for the treatment of depression and related symptoms: lemon balm (*Melissa officinalis*) for anxiety, insomnia, and depression; motherwort (*Leonorus cardiaca*) for depression and irritability; and blue vervain (*Verbena officinalis*) also for depression and irritability. Motherwort and blue vervain are specifically used for the treatment of hormonally induced mood changes such as accompanying premenstrual tension and perimenopausal changes. Passionflower (*Passiflora incarnata*) is relied on for its ability to reduce insomnia and promote restful sleep. Side effects are not associated with these herbs; however, motherwort is contraindicated during pregnancy, and lemon balm in tincture form may exacerbate hypothyroidism. Lemon balm may, however, be beneficially used to treat anxiety associated with hyperthyroidism (LowDog, 1997). Bacopa (*Bacopa moniera*) has been shown to enhance cognitive functioning and the learning of new tasks while improving memory. It may be used when there is depression with diminished cognitive functioning as is common among perimenopausal women. Gotu kola (*Centella asiatica*), known in Ayurvedic medicine as the king of tonics for the mind, may be used similarly and in combination with other therapies for enhancing cerebral function. Rosemary herb (*Rosmarinus officinalis*), which is slightly stimulating to the nervous system, has long been used in folk herbalism to enhance mood and memory, the old saying being that "rosemary is for remembrance."

Nutrition

The connection between poor nutritional status or single nutritional deficiency and depression is well reported in the medical literature. The herbalist or other alternative practitioner should place an emphasis on supporting excellent nutrition and eating habits as the cornerstone of therapy. Eating well not only provides the foundation for a healthy physiological state but also reinforces positive action for the patient, thus fostering self-esteem through self-care.

Iron deficiency anemia, particularly prevalent in menstruating women and during the years in which depression is most common, is strongly linked with depression, apathy, and rapid fatigue during exercise (Benton & Donohoe, 1999). Iron deficiency is readily corrected with nutritional supplementation. Folate deficiency has also been highly correlated with depression, with as many as one third of all patients with severe depression demonstrating this deficiency (Alpert & Fava, 1997; Bottiglieri et al., 2000; Kelly, 1998). Although it is sometimes hard to determine whether folate deficiency is a cause of depression or secondary to a poor diet due to depression, folate supplementation does enhance recovery of a positive mental state (Bottiglieri et al., 2000; Young & Ghadirian, 1989). The correlation between folate deficiency and depression appears to be a link between folate and the synthesis of methionine from homocysteine. Methionine is the precursor of S-adenosylmethionine (SAMe), a substance critical to innumerable reactions in the brain. A formidable body of research indicates that supplementation with SAMe can have a dramatic impact on the reduction of depression (Bell, Potkin, Carreon, & Plon, 1994; Benelli, Filaferro, Bertolini, &

Genedani, 1999; Fava, Gianelli, Rapisarda, Patralia, & Guaraldi, 1995; Morelli & Zoorob, 2000; Rosenbaum et al., 1990), and it appears that this naturally occurring brain metabolite has few known side effects, although it is costly.

Vitamin B12 deficiency (Bottiglieri, 1996) is also considered to play a role in depression, and the B-complex vitamins in general are associated with healthy functioning of the nervous system. Therefore, a careful dietary evaluation for B vitamins and appropriate supplementation is advisable for clients suffering from depression. Omega 3 polyunsaturated fatty acids including ALA, EPA, and DHA "may play a significant role in mental well-being" (Barre, 2001; Lombard, 2000; Severus & Ahrens, 2000). Regular inclusion of foods rich in omega 3 and supplementation with fish oil and evening primrose oil may have a dramatic impact on improving symptoms of depression.

In addition to specific nutrients, general dietary habits can contribute to psychoemotional wellness or dysfunction. Research indicates that regular meals; starting the day with a high-protein, nutrient-dense breakfast; and consuming an afternoon snack can all have a beneficial impact on mood, cognitive function, and the prevention of depression, particularly in women (Kanarek, 1997; Lombard, 2000; Young, 1993). It must be remembered that poor diet is often secondary to depression (Rogers, 2001); clients suffering from depression are therefore likely to need specific dietary counseling and encouragement.

Exercise

Numerous studies point to the benefit of light regular exercise in the treatment of depression (Cramer et al., 1991; Fox, 1999; Pronk et al., 1995). Aerobic exercise in the form of walking or dance can dramatically improve outlook and sense of well-being while enhancing self-esteem, improving sleep, and providing opportunity for enhanced cardiovascular function. Furthermore, dance can be expressive, and walking out of doors in a beautiful and peaceful setting is therapeutic as well. Overcoming inertia can be difficult for the woman suffering from depression, so joining classes or support networks may be necessary to help the client push beyond psychological and emotional resistance.

CONCLUSION

Because depression is a multidimensional process in women (Maynard, 1993), depressed women must deal with multiple layers of problems and comprehensive approaches to treatment. This may include learning new coping skills for dealing with stress and depression, making dramatic changes in work, relationships, and lifestyle, learning to incorporate nutrition and exercise into their daily way of life, and finding ways to increase their sense of meaning, self-worth, and self-esteem. This is no small order for those who are already, by definition of their condition, feeling apathetic and unable to motivate themselves to change. It is therefore essential for these women to be involved in supportive counseling and peer group situations. Although botanical and nutritional therapies cannot by themselves change the context of a woman's life, they can address some of the underlying physical factors that cause depression and reduce symptoms of depression long enough for the body to begin its own healing. Promoting sleep, enhancing energy and immunity, rectifying hormonal imbalances, and reducing chronic pain are examples. The herbalist or alternative practitioner can also serve as a resource, directing the client to other supportive therapists and counselors. A strong framework of support can provide the foundation from which these women can build

new structures and healthier landscapes in their lives, allowing them to learn from their depression, make changes, and move on to a more positive experience of living.

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