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Managing Depression During the Menopausal Transition

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The menopausal transition is associated with both first onset of depression and recurrent depression. Risk factors include vasomotor symptoms, a history of premenstrual dysphoria, postpartum depression, major depression, and sleep disturbances. Hormone replacement therapy, complementary and alternative medicine approaches, and counseling implications for assessment, education, advocacy, and self-care are discussed.

Women are diagnosed with depression at nearly twice the rate as men are (American Psychiatric Association [APA], 2000), a trend that begins in puberty (APA, 2000) and levels off after menopause (Bebbington et al., 2003). Without question, rates of depression in women are higher during their reproductive years. Although the connections between depression and premenstrual syndrome and the postpartum period are recognized and included in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV-TR*; APA, 2000), no such recognition exists for depression during the menopausal transition. Failing to recognize a potential biological component of a disorder and instead emphasizing psychosocial or intrapsychic factors can lead to treatment that is ineffective, if not harmful. Therefore, the purpose of this article is threefold: to discuss hormonally based factors associated with depression during the menopausal transition; to review the benefits and risks of hormone replacement therapy (HRT), selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), and complementary and alternative medicine (CAM) approaches to treat depression; and to offer strategies for assessment, advocacy, and intervention.

THE MENOPAUSAL TRANSITION AND RISK OF DEPRESSION

Efforts to understand possible relationships between depression and reproductive cycles in women consistently point to a strong connection between the menopausal transition and increased occurrences of depression. In a critical review of the research literature, Soares and Zitek (2008) concluded that the

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menopausal transition seems to present a unique period in which some women are more vulnerable to initial onset or recurrent depressive symptoms and major depressive episodes. Similarly, Schmidt (2005) affirmed that research studies indicate a relationship between perimenopause (the early and late stages of the menopausal transition) and the onset of depression, a relationship that did not extend to the postmenopausal stage. Deecher, Andree, Sloan, and Schechter (2008) likewise concluded that clinical studies show an increase in major depressive disorder during perimenopause compared with such occurrences during premenopause or postmenopause. The authors found that this increased risk was present even in perimenopausal women who had no prior history of major depressive disorder. Findings from longitudinal studies illustrate these conclusions. Results from the Seattle Midlife Women's Study, a prospective study that followed women for approximately fourteen years, showed that the late menopause transition stage was significantly related to depressed mood (Woods et al., 2008). Results were similar for cohorts from another prospective study, the Penn Ovarian Aging Study, an ongoing longitudinal study (as cited in E. W. Freeman et al., 2004). An examination of a 4-year cohort from this study showed that depressive symptoms increased during the menopausal transition and decreased in postmenopause (E. W. Freeman et al., 2004). E. W. Freeman, Sammel, Lin, and Nelson (2006) examined another cohort over an 8-year period from the Penn Ovarian Aging Study. They found that a woman was 4 times more likely to have high depression scores and 2½ times more likely to be diagnosed with depressive disorder when she was in the menopausal transition compared with her premenopausal period.

Although no direct associations have been identified in the research between depression during the menopausal transition and specific levels of hormones (e.g., Woods et al., 2008), E. W. Freeman et al. (2006) found that high depression scores were associated with increased levels of follicle-stimulating hormone (FSH) and luteinizing hormone. They also found that high depression scores were related to increased variability of levels of estradiol, FSH, and luteinizing hormone around each woman's own mean scores. Thus, experts (e.g., Deecher et al., 2008; Schmidt, 2005; Soares & Zitek, 2008) have suggested that the rapid, intense fluctuations in reproductive hormones rather than absolute levels of hormones leave women more vulnerable to depression. As explained by Deecher et al., 2008,

> Ovarian hormones [estrogens and progestins] have a variety of known effects in the CNS [central nervous system], including specific modulatory effects on systems implicated in the development of depression such as the serotonergic and noradrenergic systems. Unpredictable fluctuations and decline in overall estrogen levels influence the modulation of these systems, and as such, may contribute to the onset of depression during these periods. (p. 12)

Further illuminating the connection, Soares and Zitek (2008) emphasized the role of the hypothalamic-pituitary-gonadal axis, an essential component of the female reproductive axis (Soules et al., 2001). Citing numerous studies, Soares and Zitek (2008) explained that hormones and neurotransmitters share common pathways and receptors through this axis such that hormonal fluctuations responsible for vasomotor symptoms (e.g., hot flashes and night sweats) through the hypothalamic thermoregulatory center also contribute to mood through the dysregulation of the serotonergic and noradrenergic systems.

Given the impact of hormonal fluctuations on mood and thermoregulation, it is not surprising that numerous studies (e.g., Cohen, Soares, Vitonis, Otto, & Harlow, 2006; E. W. Freeman et al., 2006; E. W. Freeman et al., 2004; Woods et al., 2008) have shown a connection between vasomotor symptoms and an increased risk of depression during the menopausal transition. These and other identified risk factors, such as premenstrual depression (Becker, Orr, Weizman, Kotler, & Pines, 2007; E. W. Freeman et al., 2006; E. W. Freeman et al., 2004,) and postpartum depression (Woods et al., 2008), also support the suggestion that sensitivity to intense fluctuations in reproductive hormones makes some women more vulnerable to depression during the menopausal transition.

Although repeated hormone assays show promise of illuminating the connection between hormone changes and depression, clinicians must rely heavily on other indicators of sensitivity to hormonal fluctuations, including current experiences of hot flashes and night sweats and previous experiences of premenstrual syndrome and postpartum depression. Combining this information with information about other identified risk factors for depression during the menopausal transition, such as sleep disturbances (E. W. Freeman et al., 2006; E. W. Freeman et al., 2004; Woods & Mitchell, 2005) and a history of depression (E. W. Freeman et al., 2004; Vesco, Haney, Humphrey, Fu, & Nelson, 2007; Woods & Mitchell, 2005), will place clinicians in a better position to assess the degree to which hormonal changes in the menopausal transition are associated with depression and to work with clients accordingly.

RESEARCH ON HRT, SSRIs, AND SNRIs

Given the link between hormonal fluctuations during the menopausal transition and depression, it is important to consider the potential effectiveness of pharmacological approaches to treating depression. Extensive reviews of HRT research by Lasiuk and Hegadoren (2007) and Soares and Zitek (2008) yielded a limited number of studies, but the results are promising. Citing the same two placebo-controlled studies, both of these reviews found that estrogen therapy effectively reduced depression symptoms in perimenopausal women. The results are less clear when progesterone is combined with estrogen. A meta-analysis (Zweifel & O'Brien, as cited in Lasiuk & Hegadoren, 2007) found overall effect sizes on mood to be 0.68 for HRT that combined estrogen and progesterone

compared with 0.69 for HRT involving estrogen alone. On the other hand, Parry (2008) concluded that progesterone tended to mitigate the positive effects of estrogen and, in some cases, even exacerbated depressive symptoms.

Similar to the research on estrogen replacement, research on the effectiveness of SSRIs and SNRIs on depression during the menopausal transition is also limited but promising. In a pilot study, M. P. Freeman, Hill, and Brumbach (2006) found that escitalopram was effective in reducing depression, vasomotor symptoms, and somatic complaints among women with perimenopausal depression. Likewise, Ladd, Newport, Ragan, Loughhead, and Stowe (2005) found that venlafaxine significantly reduced depression and improved overall well-being among perimenopausal women with depression.

The potential benefits of SSRIs, SNRIs, and HRT must be weighed against their potential risks. As noted by Cohen, Soares, and Joffe (2005), serotonergic antidepressants are associated with sexual dysfunction and weight gain but few serious side effects. The risks of HRT, however, are potentially serious and must be noted. In a discussion of the medical dilemmas associated with the risks and benefits of HRT, Schulkin (2008, p. 80, Table 2) summarized key findings from the Women's Health Initiative as follows: Estrogen alone was associated with an increased risk of stroke, venous thrombosis, and dementia; a decreased risk of hip fractures; and no change in the risk of heart attack, breast cancer, or colorectal cancer. Estrogen combined with progestin was associated with an increased risk of heart attack, stroke, venous thrombosis, breast cancer, and dementia and a decreased risk of colorectal cancer and hip fractures.

Authors from the popular literature (i.e., Northrup, 2006) and the professional literature (i.e., Schulkin, 2008; Studd, 2007) decried the "one dose fits all" (Studd, 2007, p. 665) approach to HRT. In other words, the standard oral estrogen-progestin and estrogen medications create unnecessary risks and are less likely to be effective. Arguing that treatment needs to be tailored on the basis of a woman's age, phase of menopause, and individual complaints, Studd (2007) emphasized, "Different women require a different dose, by a different route, of different combinations of different hormones, for different symptoms" (p. 665). Likewise, Northrup (2006) suggested that the safest, most effective course of HRT involves individualized doses of bioidentical hormones that are determined by women's specific hormone levels and symptoms.

In terms of using HRT to address perimenopausal depression specifically, Studd's (2007) recommendation was to administer transdermal estrogen. For women who still have a uterus and therefore need endometrial protection, Studd suggested a shortened course of small doses of progestogen, an approach that is adequate for endometrial protection and useful for women who are progestogen intolerant. Soares and Zitek (2008) provided similar recommendations. They incorporated the potential role of antidepressants (i.e., SSRIs and SNRIs) based on additional considerations of vasomotor symptoms and a history of depressive episodes. For women with vasomotor symptoms and first

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onset depression (i.e., mild to moderate and no suicidal ideations) during the menopausal transition, they presented antidepressants and HRT as distinct valid options, unless HRT was contraindicated. In their discussion of HRT, Soares and Zitek recommended transdermal estradiol (a form of estrogen) and small intermittent doses of progesterone if needed for endometrial protection. For women who are experiencing vasomotor symptoms and worsening depression during the menopausal transition and who have a history of depression but had been stabilized with SSRIs, they suggested several potential options: adjusting the SSRI dose, adding HRT to the current SSRI dose, or switching to a different antidepressant (e.g., SNRI) if the HRT-SSRI combination did not work.

USING CAM APPROACHES AND TREATMENTS

A wide range of approaches are encompassed by CAM. According to researchers (i.e., Grant et al., 2007; Hill-Sakurai, Muller, & Thorn, 2008) who have studied CAM relative to menopause, CAM includes the following treatments and approaches: herbal and nutritional supplements, dietary changes, acupuncture, massage, meditation, relaxation techniques, and exercise.

Given the recent controversies regarding HRT, many women are looking for alternative approaches to managing menopause symptoms (Hickey, Saunders, & Stuckey, 2007; Panay, 2007). Believing that CAM approaches are safer and more natural than conventional treatments (Hill-Sakurai et al., 2008; Panay, 2007), women want more information about their safety and efficacy but struggle to find it—a challenge expressed even among well-educated women (Armitage, Suter, Verhoef, Bockmuehl, & Bobey, 2007). Even though women expressed a preference for receiving such information from health care professionals (Armitage et al., 2007), it seems that physicians seldom provide it. In a study of family physicians' advice about nonconventional treatments for menopausal symptoms, responding physicians were asked to select one of five available responses: *strongly discourage use*, *discourage use*, *no advice either way*, *encourage use*, or *strongly encourage use*. The most common response was *no advice either way* (Grant et al., 2007). Grant et al. (2007) reported that the majority of the respondents in their study believed that evidence regarding the effectiveness of herbs and supplements was lacking and, thus, these authors concluded that the family physicians were not clear on the advantages and the disadvantages associated with CAM approaches.

Consumers and physicians are confused for good reason. Compared with research on HRT and SSRIs, research on CAM approaches for menopausal symptoms, much less for depression during the menopausal transition, is even more limited. After reviewing the research on the efficacy and safety of nonhormonal treatments for menopausal symptoms, Hickey et al. (2007) concluded that "relatively few high quality studies have addressed this issue, almost all have only addressed the treatment of hot flushes and there are few long-term data" (p. 86).

Because estrogen therapy has been shown to relieve depression during the menopausal transition, phytoestrogens are worth mentioning. Natural hormones found in plants, phytoestrogens are available in dietary supplements and foods such as soy. They have estrogen-like properties in that they bind to estrogen receptors throughout the body and act as an estrogen agonist or antagonist depending on levels of estrogen in the body and the individual compound of phytoestrogen (Dog, 2005). Pointing out the safety of phytoestrogens, Northrup (2006) noted that their estrogenic activity is much lower than that of human estrogens and that phytoestrogens do not stimulate the growth of estrogen-sensitive tissue in the breast or uterus, two concerns associated with HRT. Hagey and Warren (2008) went even further to suggest that phytoestrogens may not only improve menopausal symptoms but also reduce the risk of breast cancer.

Hickey et al. (2007) reported the lack of risks associated with two common phytoestrogens, red clover and soy, but noted that one study raised questions of risks to the endometrium with long-term use (5 years) of high doses (150 milligrams per day) of soy isoflavones. According to reviews of the research by Dog (2005) and Hickey et al., evidence of the efficacy of red clover and soy was mixed and at times contradictory. One of the difficulties in drawing conclusions about the benefits of soy was the wide variety of composition and amount of soy supplements among the available studies (Hickey et al., 2007). Citing a placebo-controlled study by Dupree et al. in which higher daily doses of soy (160 milligrams of soy isoflavones) reduced mood swings and other menopausal symptoms, Northrup (2006) likewise criticized the research on soy for using doses that were too low to show a therapeutic effect. Northrup also provided anecdotal support for the effectiveness of soy in reducing hot flashes, depression, and other menopausal symptoms. Thus, even though the efficacy and safety of phytoestrogens need more study, preliminary evidence is promising. Similar positive conclusions were reached by Panay and Rees (2006) in a Scientific Advisory Committee opinion paper on alternatives to HRT for managing menopausal symptoms: "There are early data that some of the better researched preparations, such as soy and red clover, may well have some benefits, not only on symptom relief but also on the skeleton and cardiovascular system" (p. 7).

Although it is limited, available research indicates that other CAM approaches also offer promise for alleviating menopausal symptoms. In their review of nonhormonal treatments, Hickey et al. (2007) found encouraging results for the role of acupuncture, trained relaxation, and exercise in reducing hot flashes. Frequency of hot flashes was also affected by experimentally induced changes in blood glucose levels (Dormire & Reame, 2003), providing evidence of the impact of diet on these symptoms. Expanding beyond the role of physical symptoms, studies by Slaven and Lee (1997) and Nelson et al. (2007) found that physically active menopausal women experienced lower levels of psychological distress, including depression. Depression and other menopausal symptoms, such as hot flashes, were reduced in other studies involving the following

CAM approaches: a form of mental silence meditation (Manocha, Semmar, & Black, 2007), a cognitive-behavioral approach that included progressive muscle relaxation (Alder et al., 2006), and aromatherapy massage (Hur, Yang, & Lee, 2008). The general literature on treating depression also supports the use of CAM approaches. Seligman and Reichenberg (2007) recognized the role of other treatment options in treating a major depressive disorder and included exercise, meditation, yoga, and acupuncture among these options.

IMPLICATIONS FOR COUNSELING

As discussed previously, intense hormonal fluctuations during the menopausal transition make some women vulnerable to depression. Although intrapersonal and interpersonal factors might be important areas to explore during the menopausal transition, attributing intrapsychic or psychosocial causes to biologically induced depression may result in women feeling worse about themselves and possibly lead them to initiate changes that may make matters worse instead of better. Therefore, the possible role of biological factors deserves primary consideration and provides the focus for the following counseling implications: assessment and education, advocacy, and self-care interventions.

Assessment and Education

For women who present with depressive symptoms, key initial steps for assessment include determining the degree to which hormonal fluctuations might be involved, a collaborative process in which assessment and education go hand in hand. Not knowing what to expect during menopause and the transition into this physical phase is the greatest fear commonly expressed by women regarding this time of their life (Huffman, Myers, Tingle, & Bond, 2005; Koch & Mansfield, 2004). Counselors can play a significant role in helping clients to know what to expect (Huffman et al., 2005), to determine their menopausal status (Koch & Mansfield, 2004), and to assess whether their distress is related to perimenopause (Derry, 2004).

Helping women to recognize that they are transitioning into menopause is a critical first step, one that is complicated by the fact that women reach menopause at different ages (roughly 42 to 58 years) and that the menopausal transition is a "*process* and not an *event*" (Soules et al., 2001, p. 845). Soules et al. (2001), a select group of clinicians and researchers, established a staging system for female reproductive aging. Sometimes referred to as *perimenopause*, the *menopausal transition* is the stage between the reproductive years and postmenopause (Soules et al., 2001). Soules et al. (2001) divided the menopausal transition into two stages. In the *early menopausal transition* stage, menstrual cycles remain regular, but the length of the cycles changes by seven days or more, resulting in shorter or longer cycles. The *late menopausal transition* stage is characterized by two or more skipped cycles and at least one interval in which menstrual cycles are

at least 60 days apart. Although changes in cycle length and menstrual flow often occur during the transition stage, Soules et al. (2001) considered these changes too variable to include in a staging system. Reproductive aging is also indicated by changes in hormone levels; specifically, an elevation in FSH is a first sign of reproductive aging that is initially detected in the *late reproductive stage* and the early menopausal transition stage. During the late reproductive stage, some women start to experience "vasomotor symptoms, breast tenderness, insomnia, migraines, and premenstrual dysphoria" (Soules et al., 2001, p. 847). Vasomotor symptoms are the most frequent and prominent symptoms, and women in the late menopausal transition stage and early postmenopause phase "frequently experience the onset of or increased intensity of vasomotor symptoms" (Soules et al., 2001, p. 847).

The preceding information is helpful in determining whether women are in the menopausal transition stages. Assessment strategies mentioned by Soules et al. (2001) included the following: asking women to keep calendars of their menstrual cycles, obtaining blood tests of FSH and estradiol levels between days 2 and 5 of menstrual flow, and performing uterine sonograms to rule out uterine pathology as a cause of bleeding. The last two suggestions require medical personnel and are discussed in the next section of the article. Encouraging women to keep calendars, however, is a strategy that counselors can use. In addition to recording menstrual cycles, counselors may also want clients to track other potential signs of reproductive aging, particularly hot flashes, night sweats, and sleep disturbances, all of which have been associated with perimenopausal depression. Determining whether women have a history of premenstrual dysphoria, postpartum depression, or major depressive disorder is also critical to the assessment process. Counselors might also consider using a formal assessment of menopausal symptoms, the MENCAV scale (Bermejo et al., 2008), a valid and reliable interview questionnaire that assesses physical health, mental health, sexual relations, personal relationships, and social support. Finally, counselors might consider asking clients to reflect on their mood through questions such as these proposed by Derry (2004):

> Does the woman have, somehow, an inner certainty that these changes are hormonal, "not her," that they have arisen abruptly and for no reason, or some other experience that leads her to believe that these are best understood as being "purely physical"? (p. 171)

While their clients are tracking symptoms, sorting through their emotions, and making decisions about potential interventions such as HRT or CAM, counselors can recommend books and websites as additional sources of information. Northrup's (2006) book *The Wisdom of Menopause* is a comprehensive readable resource. Baldo, Schneider, and Slyter (2003) recommended

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the following websites for information and treatment options: Agency for Healthcare Research and Quality (www.ahrq.gov/clinic/3rduspstf/hrt/hrtrr.htm), Mayo Clinic (www.mayoclinic.com), Johns Hopkins Medicine Health Alerts (http://hopkinsafter50.com), and Harvard Health Publications (www.health.harvard.edu). For information on CAM, Panay and Rees (2006) recommended the American Cancer Society (www.cancer.org), the National Institutes of Health Office of Dietary Supplements (www.ods.od.nih.gov), and the National Center for Complementary and Alternative Medicine (http://nccam.nih.gov/).

Finally, assessment typically involves deciding on a diagnosis. If counselors suspect that hormonal fluctuations play a role in their clients' depressive symptoms, they need to consider a diagnosis of Depressive Disorder Not Otherwise Specified (APA, 2000, pp. 381–382), the appropriate diagnosis for a depressive disorder when clinicians are unable to determine whether the depression is due to a general medical condition. This diagnosis can be changed to Mood Disorder Due to a General Medical Condition (APA, 2000, pp. 401–405), if a client's physician diagnoses her with a medical condition related to menopause or menstrual bleeding. If the depression cannot be tied to the menopausal transition or another medical condition, the diagnosis would then be changed to the appropriate one, such as Major Depressive Disorder (APA, 2000, pp. 369–376).

Advocacy

Several recommended strategies for assessment and treatment, such as blood tests for hormonal levels; uterine sonograms; making decisions regarding HRT, SSRIs, or CAM; and prescriptions for bioidentical HRT, require cooperation from medical personnel. Counselors can advocate for clients directly through consultations with clients' physicians or indirectly through preparing clients to be self-advocates with their health care providers. Counselors can empower clients to be self-advocates by helping them to plan for medical appointments in many ways: (a) preparing a summary of their recent menstrual cycle history, emphasizing any changes; (b) making a list of personal and family history of related medical conditions (e.g., heart disease; osteoporosis; and breast, uterine, or ovarian cancer); (c) generating a list of requests such as specific hormone tests; (d) writing down CAM approaches that they are currently using or considering; (e) creating a list of questions; and (f) identifying local compound pharmacies.

In addition to serving individual clients through advocacy, counselors might consider other methods for advocacy such as networking with local pharmacists who compound medications, networking with local obstetricians/gynecologists, and starting support groups related to menopause and the menopausal transition. Guidelines for developing a menopause support group are available at the website of the North American Menopause Society (www.menopause.org).

Self-Care Interventions

Langer (2008) recommended that women "treat their menopausal bodies with the same care and level of nurturance that they reserve for the pregnant or nursing women" (p. 664), a recommendation that is echoed by Schmidt, Murphy, Haq, Rubinow, and Danaceau (2004), who suggested increasing social support, improving self-efficacy, and reducing stress to alleviate perimenopausal depression. In their discussion of social support during the menopausal transition, Koch and Mansfield (2004) noted that women need to avoid overextending themselves in providing support to others and need to focus instead on getting the support they need. Koch and Mansfield emphasized three forms of social support: informational support (information and advice), emotional support (empathy and caring), and instrumental support (tangible aid and services). Although counselors and other health care professionals are clear sources of support, a major form of self-care involves reaching out to current support networks of family and friends and, perhaps, extending social networks through support groups and online resources. Koch and Mansfield recommended Power Surge (www.power-surge.com), an online resource that offers chat rooms and other resources.

A strong social support system provides the backdrop for other self-care interventions. In her discussion of coping with distress during perimenopause, Derry (2004) recommended several interventions: an exercise program, dietary changes, nurturing oneself, relaxation, and deep abdominal breathing. In their mind–body approach to coping with menopause, Kagan, Kessel, and Benson (2004) also recommended the previous strategies as well as others such as yoga and meditation. They also provided detailed examples of relaxation techniques, such as progressive muscle relaxation, guided imagery, mindfulness, and meditation. Although the data are preliminary, the research reviewed earlier on CAM approaches supports the use of these interventions. To track the effectiveness of selected interventions on menopausal symptoms, women could record them on the same calendar they are using to track these symptoms. For example, recording caffeine consumption and sleep disturbances could show whether reducing caffeine intake led to improved sleep.

CONCLUSION

The menopausal transition is a distinct phase in the life of many women, a time that is different from premenopause and postmenopause. Mounting evidence suggests a strong link between depression and the menopausal transition, particularly for women who experience physiological symptoms and who have a history of sensitivity to premenstrual hormonal fluctuations. The professional literature (e.g., Cohen et al., 2005; Lasiuk & Hegadoren, 2007; Soares & Zitek, 2008) recognizes that what works or does not work for postmenopausal women may not have the same effects for women transitioning to menopause.

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Understanding physical and emotional symptoms and making decisions about appropriate treatments can be confusing and overwhelming. Counselors can provide the missing link to assist the client through education, assessment, advocacy, and intervention.

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