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Original Research

Anxiety in Menopause: A Distinctly Different Syndrome?

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A B S T R A C T

Anxiety is a common mood symptom that may be experienced by some menopausal women; however, few studies have explored the concept of anxiety in the context of menopause. Consequently, the anxiety experience in menopause is not well defined and raises the question: Is menopausal anxiety a unique and distinctly different syndrome? The aim of this qualitative study was to gain an in-depth understanding of the experience of new-onset anxiety in menopausal women.

Introduction

Menopause is a normally occurring physiological event defined as a woman's final menstrual period (FMP) naturally occurring on average around age 52.[1] Natural menopause will eventually affect all women reaching middle adulthood, and it is estimated that 6,000 US women reach menopause every day.[1] As a physiologic event, menopause is characterized by a decline in estrogen and progesterone.[1] As a psychophysiological event, menopause is experienced by women as a process characterized by a variety of symptoms, including anxiety.[1] Perimenopause is the stage before the FMP, which is marked by hormonal fluctuation and irregularity in the menstrual cycle.[2] Some studies have identified an increase in anxiety symptoms during perimenopause[3,4] however, few studies have examined anxiety during the postmenopausal stage.[5] Although hormone therapy (HT) may be recommended to treat symptoms associated with menopause,[1,6] it does not always resolve the issue of anxiety in menopausal women.[7] The fact that menopausal symptoms are not universal suggests that these symptoms are not entirely biological and that some other dynamic is at play.[6]

Although anxiety is a mood symptom that may be experienced by some menopausal women,[1,8] it has received little attention in the literature despite the potential impact on quality of life.[6,8] The term *anxiety* is often used to describe a wide variety of symptoms that may include features of various anxiety disorders, such as panic disorder (eg, suddenly feeling fearful for no reason) or generalized anxiety (eg, excessive and uncontrollable worry, irritability),[9] or physical symptoms, such as shortness of breath, racing heart, and tension. To further complicate the issue, some of these symptoms may be difficult to distinguish from other symptoms associated with menopause or symptoms that are commonly associated with the aging process.[8]

The fact that the terms *anxiety*, *anxiety symptoms*, and *anxiety disorders* are often used interchangeably makes it difficult to compare study results.[9] Many studies use validated tools designed to measure general anxiety, such as the Hospital Anxiety and Depression Scale,[3] State-Trait Anxiety Inventory, and the Generalized Anxiety Scale.[10] Because these scales have not been designed to assess anxiety specifically related to menopause, interpretation may be somewhat limited.[11] Evaluation and measurement of menopausal anxiety in terms of a general type of anxiety disorder assumes that menopausal anxiety shares similar criteria as anxiety disorders, and this may not be true. Anxiety in menopause may have an unpredictable onset or an intermittent temporal pattern, making it difficult to detect in studies of short duration or cross-sectional designs that are measuring symptoms at 1 point in time.[11] To further complicate this issue, anxiety is often studied in menopausal women as part of a symptom cluster[6,9] or as it relates to hot flashes.[12,13] Of the articles that have evaluated the association between menopause, anxiety, and hot flashes, the findings are inconsistent due to a variety of definitions and symptom descriptions and the use of nonvalidated symptom measures.[12]

There are many physiological, psychological, and situational hypotheses for causes of anxiety in menopausal women. Research has suggested there may be a role for age,[14] stress,[15] depressive symptoms [16] and sleep disturbance.[17] Several of these variables overlap with menopausal symptoms, and the exact impact of these variables on anxiety in menopause remains unclear. Few studies have assessed anxiety in the context of menopause, leaving the concept of menopausal anxiety not well defined and raising the question: Is menopausal anxiety a unique and distinctly different syndrome?

Methods

Research Design

A naturalistic descriptive qualitative methodology was selected to achieve a greater, detailed understanding of the experience of new-onset anxiety in menopausal women.

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Participants

Purposive sampling was used to recruit a group of menopausal women through e-mail advertisement within an urban university and medical center. Inclusion criteria included natural menopause (defined as no menstrual period for 12 months), self-reported anxiety symptoms that were new or different with the onset of menopause and the ability to speak and understand English. Exclusion criteria included women who had a surgically induced menopause. Surgically induced menopause was excluded because it represents a different type of a menopause experience that is sudden, unlike the typical transition of a natural menopause.[1] Of the 27 participants who were screened, 20 were eligible to participate in the study. Of those participants who were not eligible, 3 were still menstruating, 3 had surgical menopause, and 1 reported the onset of anxiety symptoms much earlier in her life, years before the onset of menopause.

Data Collection Procedure

Before beginning the study, the researcher obtained approval from the Institutional Review Board of the university. Written informed consent was obtained from participants before enrollment, and eligible women who consented and agreed to participate were scheduled for an interview at a location that was mutually agreed upon. Qualitative data were obtained through face-to-face interviews with the use of a semistructured interview using open-ended questions such as "Tell me about your anxiety experience in menopause" and "How has anxiety affected your life." Interviews were audio-recorded by the researcher lasting approximately 30 to 60 minutes. After completion of the interview, participants were given a $10 gift card to a local business for participation in the study.

Data Analysis

Qualitative data were analyzed using an inductive and comparative analysis strategy that consists of consolidating and reducing the data and interpreting what was seen in the interview and what was read in the transcripts.[18] After each interview, the recording was transcribed verbatim by a professional transcribing company into a de-identified Microsoft Word document. Transcripts were read several times to become familiar with and gain insight into the data. Participants' collective responses were analyzed line by line, and a conceptual map was developed to organize the data into categories. Similar categories were then combined and grouped into key themes, at which point we analyzed the relationships between the themes and created an in-depth textural description that described the anxiety experience and variables that may contribute to anxiety, thus achieving the aim of the study.

Rigor of the study was enhanced by verifying the accuracy of the transcripts, which was achieved by listening to the recording while the transcript was initially reviewed. Data were independently coded and sorted into categories by 3 investigators. A detailed audit trail was maintained and periodically reviewed by an experienced qualitative researcher. The audit entailed a review of documentation specifically describing how data were collected, how categories were determined, and how decisions were made throughout the research process.[18] The audit trail included a detailed, comprehensive reflexive journal documenting the investigator's thought processes, philosophical position, and the basis of decision-making.[19] Peer debriefing was performed by an experienced qualitative researcher, done at multiple points throughout the data analysis to discuss insights and ideas as well as to provide opposing views to clarify meanings and interpretations of the data.[19]

Results

Sample

The participants' ages ranged from 48 to 71 years, with a mean of 56.8 (5.4) years, and the age of onset of menopause ranged from 45 to 56 years with a mean of 50.9 (3.5). The majority of the participants (n =13) had been in menopause for 1–4 years, (n = 5) had been in menopause 7–12 years, and the remainder (n = 2) had been in menopause for 17–20 years. The majority of the participants were not married (65%), and all participants with the exception of 1 were working either full or part time. The participant who was not working is retired and does volunteer work weekly. All of the participants had children with the exception of 1. The number of children ranged from 1 to 4 with a mean of 2 (1.1) children (Table 1).

Emergent Themes

Theme 1: Anxiety in Menopause is a Unique and Individual Experience

The majority of participants reported that the onset of anxiety symptoms began in menopause (Table 2). Varied descriptions included an anxiety response to stressful situations with anxiety symptoms lasting minutes to hours and resolving simultaneously with resolution of the stressful situation. Some participants reported mainly nighttime-related anxiety lasting minutes to hours, and some of the participants identified anxiety as an ongoing very low level, mild, background type of anxiety that is present all of the time but is exacerbated by stressful situations.

The severity of symptoms varied considerably with participants rating it anywhere from an overwhelming, debilitating experience when it occurred, and others reported it as mild, more annoying but manageable. Several participants said that they experienced anxiety before going to bed or waking up in the middle of the night. One woman described it as:

> you know the first awareness would be … not that I'm awake … it would be something's wrong and … feeling a little short of breath, having my heart beat too fast, being all sweaty and then becoming aware of what I was thinking … then that would cycle into stupid things, like … did I pick the right color to paint the living room … but that would seem like a life-threatening issue at 3:00 in the morning.

Other women gave similar descriptions, describing the anxiety typically starting by waking up between 2:00 and 3:00 AM, with

Table 1
Sample Demographics

N = 20	Mean	SD
Current age	56.8	5.4
Age of menopause	50.9	3.5
Number of children	2.0	1.1
	n	%
Marital status		
Married	7	35
Divorced	8	40
Widow	4	20
Separated	1	5
Employment		
Full time	15	75
Part time	3	15
Volunteer	1	5
Full-time student	1	5
Race		
Caucasian	11	55
African American	8	40
Other	1	5

Table 2
Emergent Themes and Subthemes

Themes	Subthemes
Anxiety in Menopause is a Unique and Individual Experience	Descriptions
	Triggers (worry about family, insomnia, hot flashes, night sweats, stress)
I Am Different Now	Insignificant things become major stressors
	Inability to focus
	Decreased tolerance for stress
	Worry is increased
	Irrational thoughts
	Isolation
	Change of self
Help Me Help Myself	Preferred treatment options
	What I want from my health care provider
	Support system
The Power of Knowing	If I only knew
	You're not crazy

racing thoughts and worries that including feeling a sense of loss of control and an overwhelming sense of dread or uneasiness. One woman described it as "a sudden creepy feeling … a distinct feeling that comes on suddenly like going from 0 to 60, feeling like something horrible has happened." When the anxiety occurred, many participants reported that they could not identify the cause and that overall, anxiety was unpredictable, which contributed to the feeling of being out of control.

For many of the participants anxiety was reported as not constant, but more dependent on situations and would increase with high stress. Many participants reported worrying about their children as a major trigger for anxiety. Most of the participants described the anxiety experience as an exaggerated, more intense response to stress, almost like an overreaction (blowing things out of proportion) and some of the women reported conjuring associated unrealistic fears. One of the mothers confided:

> things were definitely different. I got very reactionary … when it … came … to my kids … I started thinking about worst-case scenarios … and end up getting all worked up over nothing … it's kind of like … a shock just going through my body that starts with this burning, tense, tightening sensation that starts in … my gut. I just kind of know something's wrong … you can feel the adrenaline just going right up into my head and by the time it got to my head, I'm like, "something horrible has happened." When it was done, it was all of a sudden, everything … it was like putting the genie back in the bottle.

Most participants reported associated symptoms that occurred with or triggered the anxiety, including insomnia, hot flashes, night sweats, and stress. Insomnia was a major trigger for all of the women either by waking up with an anxiety experience or not being able to sleep that caused anxiety over losing sleep. One participant described it as "right as I'm about to fall asleep, it's like I am struck with this … panicky … overwhelming dread."

The majority of women who reported hot flashes identified them as a major disruptor of sleep and for many of the women the hot flashes were a trigger for anxiety. One woman explained that the majority of the time she wakes up with a hot flash, but other times "something" wakes her up and she finds that she is feeling anxiety from it. Many women reported waking up frequently and once awake becoming aware of mind racing and experiencing an "unnerving feeling" unable to put a finger on the cause.

Theme 2: I Am Different Now

The majority of participants reported that their anxiety experience feels different in menopause. Most reported experiencing a normal stress response to stressful situations before menopause but noticed a big change after menopause. Almost all of the participants said when stressful situations now arise, they feel magnified or more monumental than they would have been before menopause. One mother told me that when it came to issues regarding her children she would go through such an irrational thought process worrying about her children, she would get to the point of feeling physically ill. She described how her worry led her to feel like a different person:

> my daughter started driving on her own … I'll track her on my phone. I sit in my living room and I watch where she's going and you know I just worry … she's … gonna get into an accident, or someone's gonna run in to her … my mind just goes, wanders, makes up this whole story of what's going to happen … it's sort of made me a different person.

Several participants acknowledged that before menopause, their lives were much more stressful than they are currently, and they never experienced this type of anxiety until they started in menopause. One participant reported "even being on vacation … and having a positive experience I would still get it [anxiety]."

Many women complained of slower thinking, a decrease in ability to focus and the inability to respond as quickly as they did before menopause which they thought may contribute to anxiety. Many participants also reported feeling less able to handle stressful situations comfortably, feeling more unsure about things that were previously taken for granted and seemingly insignificant things that wouldn't have been concerning before menopause now cause anxiety.

Many of the participants identified as being very social before their menopause experience; however, now they reported isolating themselves socially because of the fear of having anxiety or hot flashes in public. Several women stated that if they knew that a situation might be potentially anxiety producing for them, they would choose not to engage in the situation.

The majority of the women did not identify as being anxious before menopause. Many of the women experienced a change of self with the anxiety experience in menopause. Several women reported that being anxious has created a sense of doubt that they had not experienced before, and 1 woman confided that she feels weaker and less confident than she did before menopause.

Theme 3: Help Me Help Myself

The majority of women said they did not want to take medication for the anxiety. Overwhelmingly, the preferred management of symptoms included nonpharmacologic interventions. One of the participants (with no uterus) tried oral estrogen (brand name unknown) and said it made the anxiety worse. One participant was

using an oral estrogen/progestin (EP) combination (brand name unknown) for 1 year and another participant was using EP (brand name unknown) for 2 years. Both women reported that although it helped with vasomotor symptoms, they still experienced anxiety symptoms. Two women were currently using antidepressants reporting that it helped overall with mood symptoms but did not relieve the menopausal-type of anxiety that they experienced (e.g., nighttime anxiety episodes). Most of the participants reported using various nonpharmacologic interventions for anxiety, including breathing, walking, yoga, listening to music, self-talk/self-reassurance, meditation, and grounding. All of the women reported these interventions helped substantially.

The majority of the participants confided that they had not discussed anxiety in menopause with their women's health provider largely because they had no idea that the anxiety could be associated with menopause. One woman said, "I actually would have never thought to talk to my GYN about it—it would've never crossed my mind … I just wouldn't have associated it [anxiety and menopause] together." Other reasons included lack of desire for medication. One participant said, "If I say something to my doctor, she'll want to prescribe something, and I don't want medication."

Women wanted health care providers to initiate conversations about menopausal symptoms, provide education, ask detailed questions about *their* specific individual anxiety symptoms, and provide individualized ways to manage it. Most of the women agreed that they did not want medication to be the first intervention. They prefer that health care providers just acknowledge anxiety and let women know that there is a correlation between menopause and anxiety. The majority of participants reported having good social support systems help tremendously; for example, one participant stated:

> Talking with a friend … helped remove isolation by finding out that others were feeling the same way. We could turn to each other and say "I feel crazy."

Theme 4: The Power of Knowing

The majority of the women said they wished someone would have told them about anxiety symptoms before menopause. Many participants agreed that simply not knowing the cause of the anxiety contributed to an increase in the anxiety. Many, if not most, said that once they knew that the anxiety could be related to menopause, it was empowering and made it more tolerable and easier to manage the symptoms. One woman said, "I thought there was something wrong with me. I went to therapy and my therapist said 'Welcome to menopause.' I started talking with friends and found out others were feeling the same way." All of the women felt that education was critical, and they all agreed that "knowledge is power." Overwhelmingly, the message that most of the participants wanted to give to other women is for them to know "you're not crazy—anxiety in menopause is real."

Discussion

The purpose of this study was to explore and gain insight into the concept of anxiety in the context of menopause. A secondary aim of this research was to identify variables that may influence anxiety in the menopausal population, which may provide a foundation for future interventional research. The findings suggest that anxiety in menopause is a unique symptom experience with variation in symptoms, duration, and intensity. Symptoms may occur randomly or in response to a stressful situation, may be intermittent in nature lasting a few minutes to hours, or may be be a mild, ongoing sensation of feeling uneasy. Symptoms with nighttime onset may occur either before going to sleep or waking from sleep and share some features of panic with associated mind racing and associated sensations of dread and anxiety.[20]

The menopausal anxiety experience described by the majority of participants in this study qualitatively differs from the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (*DSM-5*) criteria used to diagnose generalized anxiety disorders. None of the participants described their experience as "excessive anxiety and worry occurring more days than not for at least 6 months or as being difficult to control the worry."[20] Consequently, without a clearer understanding of the unique experience of anxiety in menopause, it is possible that anxiety experienced by women in menopause would be undiagnosed or mismanaged because it does not meet *DSM-5* criteria.

All of the participants reported their anxiety as involving a more intense response to stressful situations, which is supported in the current literature. The domino effect of the decline in reproductive hormones coupled with the effects on the neuroendocrine system may adversely affect women's response to stress[15] and may contribute to symptoms of anxiety in postmenopausal women.[21] With the early stage of postmenopause (3 to 6 years after the FMP) being characterized with the stabilization of the reproductive hormone decline,[1] the lower levels of ovarian hormones and the accompanying effects on the neuroendocrine system may well set the stage for this new-onset anxiety experience in menopausal women.

Sleep disturbance emerged as a factor influencing the experience of anxiety in this sample. Sleep disturbance is a common complaint reported by many women during menopause,[17] and all the women in this study reported some type of sleep disturbance and identified a cyclic association with disturbed sleep triggering anxiety or anxiety in turn disrupting sleep. The mechanisms of sleep disturbance in menopause are complex and have been associated with many factors, including age, a decline in estrogen, and anxiety; however, the influence of each factor remains unclear.[22,23]

Most of the women did not want medications prescribed to treat the anxiety. The 2 women who were using HT reported improvement in vasomotor symptoms, but anxiety symptoms were still present. This experience is supported in the literature with the Postmenopausal Estrogen/Progestin Interventions Trial (PEPI). Results showed vasomotor symptom relief resulting from treatment with HT regimens versus placebo; however, postmenopausal HT did not affect self-reported anxiety symptoms.[24] First-line treatment options for anxiety symptoms include selective serotonin reuptake inhibitors (SSRIs) and serotonin norepinephrine reuptake inhibitors (SNRIs), which have been reported to provide limited symptom relief; however, they carry an extensive side effect profile, including sexual dysfunction, fatigue, and weight gain, which may actually exacerbate existing menopausal symptoms.[1,8]

The strength of this study lies in the qualitative design, which allows for a level of detail that could not have been achieved through a quantitative design. Limitations include the small, convenience, self-selected sample from a limited geographic area where attitudes toward hormones, antidepressants, alternative therapies, and approaches may not be representative of all menopausal women. Another limitation with qualitative research is that data analysis is subject to researcher interpretation; however, the data were reviewed and analyzed by several researchers, who ultimately agreed on results.

Implications and Conclusion

This study has revealed important information relevant for research and clinical practice. Without the need for OB/GYN

services, many menopausal women use primary care providers for comprehensive health care needs. Primary care nurse practitioners may be uniquely positioned to initiate this conversation and use an individualized approach to diagnose and treat the *type* of anxiety being experienced by menopausal women. Because the term anxiety may have different meanings to both patient and clinician, it is crucial to determine which symptoms are attributable to menopause or those that may be related to a psychological condition.[12,17,25]

Women experiencing menopausal anxiety may benefit from a different approach to management. Education and anticipatory guidance were identified as key issues and may be considered as intervention tools by alerting women early in perimenopause to the possibility of anxiety as a symptom of menopause. Cognitive-behavioral therapy, mindfulness-based therapy, and other types of supportive psychotherapy have demonstrated efficacy in treating several menopausal symptoms including anxiety.[1,8,26,27] It is well established that stress reduction is beneficial in managing mood symptoms associated with menopause[28] and relaxation and stress-reduction therapies have been identified as therapeutic options for treating psychological symptoms associated with menopause including anxiety.[1,29]

This study has provided new insights into the anxiety experience in menopause. Each woman will have a unique symptom experience in menopause and will need to manage symptoms differently. Understanding this nuanced symptom profile will allow health care providers to identify and define anxiety for menopausal women, construct individualized treatment plans based on patient preference, and ultimately improve quality of life for menopausal women.

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