

The Psychometric Properties of the Midlife Women's Symptom Index

Youjeong Kang, Young-Ran Han, Sun Ju Chang, Wonsik Chee, and Eun-Ok Im

Correspondence

Young-Ran Han, PhD, RN,
123 Dongdae-ro,
Gyeongju, Gyeongbuk Do
(780-714), South Korea.
hanyr@dongguk.ac.kr

Keywords

psychometric properties
reliability
validity
symptoms of menopause
race/ethnicity

ABSTRACT

Objective: To evaluate the psychometric properties of the Midlife Women's Symptom Index (MSI) among four racial/ethnic groups of midlife women in the United States.

Design: A secondary data analysis.

Setting: Internet communities/groups.

Participants: A total of 494 midlife women with symptoms of menopause who self-reported using an Internet survey and completed all sections of the MSI questionnaire.

Methods: Data were collected from January 1, 2008 to December 31, 2010. The psychometric properties of the MSI were evaluated using measures of internal consistency, item-total correlation coefficients, and discriminant validity.

Results: There were statistically significant differences in marital status, employment, income, religion, country of birth, level of education, diagnosed disease, and self-reported health status across the four racial/ethnic groups. The Kuder-Richardson Formula 20 (KR-20) coefficients for the three subscales of the MSI prevalence section (i.e., physical, psychological, and psychosomatic) ranged from 0.58 (psychosomatic symptoms in Whites) to 0.91 (psychological symptoms in Asian Americans). The Cronbach's alpha coefficients for the three subscale scores ranged from 0.60 (psychosomatic symptoms in Whites) to 0.93 (psychological symptoms in Asian Americans). The mean scores of the MSI differed significantly by race/ethnicity among midlife women of each menopausal status, except for the prevalence section of the psychosocial symptoms.

Conclusion: The MSI has demonstrated an acceptable reliability and appropriate discriminant validity across the four racial/ethnic groups, except in the domain of psychosomatic symptoms. Health care providers as well as researchers could use the MSI to assess the symptoms of menopause of midlife women from diverse racial/ethnic backgrounds.

JOGNN, 44, 600-609; 2015. DOI: 10.1111/1552-6909.12741

Accepted June 2015

Youjeong Kang, MPH,
CCRN, is a doctoral
student, University of
Pennsylvania, Philadelphia,
PA.

Young-Ran Han, PhD, RN,
is a professor, Department
of Nursing, Dongguk
University, Gyeongju,
South Korea.

(Continued)

Menopause is a transitional period in every woman's life, as it signifies that a woman is moving from being reproductive to nonreproductive (Greene, 1998). During this period, more than 80% of women experience physical or psychological symptoms with varying degrees of severity and duration that are called symptoms of menopause (Freeman, Sammel, Liu, & Martin, 2003). Although it generally has been assumed that all women experience similar symptoms, some sociocultural factors such as race/ethnicity influence individual women's experiences of symptoms of menopause (Fu, Anderson, & Courtney, 2003).

Considering differences in women's experiences of symptoms of menopause based on their racial/ethnic background is necessary but difficult for health care providers who lack culturally appropriate assessment instruments. For this

reason, the Midlife Women's Symptom Index (MSI) was created to measure various types and clusters of symptoms of menopause reported by racially/ethnically diverse groups of midlife women (Im, 2006; Im, Meleis, & Lee, 1999; Lee, Im, & Chee, 2010). There have been modifications to the MSI based on psychometric testing, but only one study was conducted to evaluate the psychometric properties of the most current version of the MSI (Lee et al., 2010). Researchers suggested that further research was warranted to reappraise the instrument's performance among diverse racial/ethnic groups of midlife women.

Background

Researchers have reported significant racial/ethnic differences in symptoms of menopause (Freeman et al., 2001; Im, Lee, & Chee, 2010),

The authors report no conflict of interest or relevant financial relationships.



perceptions and tolerance of physical discomfort, and approaches to symptom management among healthy women in the United States (Gold et al., 2006; Im, Lee, Chee, Brown, & Dormire, 2010). However, results are inconsistent regarding whether women experience increased or decreased symptom severity based on their race/ethnicity, especially in comparisons of hot flash symptoms and sleep disturbances between African American and White women (Freeman et al., 2001; Im, 2006; Im et al., 2010). For example, in the Freeman et al. study (2001), African American women tended to report more severe symptoms than White women. On the other hand, Im et al. (2010) found that African American women tended to under-report hot flash symptoms in comparison to White women. In other research, White women reported more frequent nighttime waking than any other racial/ethnic group (Kravitz et al., 2003). Thus, instruments which accurately measure variation in symptoms of menopause across different racial/ethnic groups are essential to guide competent women's health care.

Many researchers have developed instruments to measure symptoms of menopause. For example, Kupperman, Wetchler, and Blatt (1959) recorded 11 menopausal complaints, and their list subsequently evolved into the Blatt-Kupperman Menopausal Index (Alder, 1998). Several other instruments are also available to assess women's symptoms of menopause: the Greene Climacteric Scale (Greene, 1998), the Menopausal Symptoms List (Freeman et al., 2003), and the Menopausal Rating Scale (Heinemann, Potthoff, & Schneider, 2003). However, most of these instruments have failed to consider racial/ethnic differences in symptoms of menopause, because they were developed and used primarily among White women (Alder, 1998; Avis et al., 2001; Im, 2006). These prior instruments, except for the Menopausal Rating Scale, also had other limitations, including their development by mostly male researchers (Alder, 1998; Im, 2006) and unclear definitions of terms for symptoms of menopause (Alder, 1998).

Unlike other instruments, the MSI was developed with a focus on assessing ethnic differences in symptoms of menopause based on the literature about the diversity of symptom experiences of menopause among Western and Asian populations (Im, 2006). Previous studies verified that the MSI scale could be sensitive to differences in symptom reporting among different racial/ethnic groups (Im, 2009; Im et al., 2010). However, the initial instrument development study examining

Significant racial/ethnic differences in perception of symptoms of menopause, tolerance of physical discomfort, and approaches to symptom management among healthy women have been reported in the United States.

the psychometric properties of the MSI was conducted with a relatively small sample of 77 midlife women (Im, 2006). Later studies validated the MSI using data collected from four racial/ethnic groups of midlife women, including Hispanic, Asian American, African American, and White participants (Im, 2009; Lee et al., 2010). Further reevaluation of the MSI's psychometric performance using a new study population would further support its reliability and validity for symptom characterization among diverse racial/ethnic groups of midlife women.

The purpose of this secondary analysis was to evaluate the psychometric properties of the current version of the MSI among four racial/ethnic groups of midlife women in the United States using existing data from an Internet survey on midlife women's attitudes toward physical activity. The specific aims were (a) to evaluate the reliability of the MSI including internal consistency and item-total correlation coefficients by race/ethnicity, (b) to evaluate whether the MSI mean scores differ by race/ethnicity, and (c) to evaluate discriminant validity of the prevalence and severity MSI scores among women of different menopausal statuses.

Methods

This study was a secondary analysis of data from a cross-sectional Internet survey on attitudes toward physical activity among midlife women. The parent study used the MSI to measure self-reported symptoms of menopause to determine whether symptoms of menopause influenced the physical activity of midlife women (Chang, Chee, & Im, 2013; Im et al., 2012). The 542 midlife women who participated in the parent study were recruited through Internet communities/groups for midlife women in the United States, using a convenience sampling method. Inclusion criteria were women who (a) were between age 40 and 60 years, (b) could read and write in English, and (c) self-reported their racial or ethnic identities as Hispanic, Asian American, African American, or White (Chang et al., 2013; Im et al., 2012). Self-reported race and ethnicity categories were based on National Institutes of Health guidelines (Boehmer et al., 2002). The data were collected

Sun Ju Chang, PhD, RN, is a postdoctoral researcher, University of Pennsylvania, Philadelphia, PA.

Wonsik Chee, PhD, is a research associate professor, University of Pennsylvania, Philadelphia, PA.

Eun-Ok Im, PhD, MPH, RN, CNS, FAAN, is a professor and Marjorie O. Rendell Endowed Professor, University of Pennsylvania, Philadelphia, PA.

Download English Version:

<https://daneshyari.com/en/article/2632189>

Download Persian Version:

<https://daneshyari.com/article/2632189>

[Daneshyari.com](https://daneshyari.com)