

Original Article

Assessing Menopausal Symptoms among Turkish and German Women with the Menopause Rating Scale: A Cross-Cultural Study

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Abstract

Objective: This study was carried out in design of analytical descriptive and determined the statistical differences between Turkish and German women's menopausal symptoms

Methodology: The study was carried out on Turkish and German women who are currently residing in the town center of Alanya. Study was carried out with 160 Turkish and 160 German women, and the snowball sampling method was used. Study used Socio-Demographic Data Descriptive Survey Form and Menopause Rating Scale (MRS). Evaluation of the data count, percentage, Chi-square test, and Spearman correlation analysis were used.

Results: In this study, the mean age of menopause for Turkish women was 47 ± 4.22 and for German women it was 47 ± 5.58 . Statistically significant differences were found between Turkish and German women's menopause age, menopause duration and type of menopause (in order; $p=0.035$, $p=0.033$, $p=0.002$). There were significant differences between Turkish and German women's somatic ($p = 0.001$), psychological ($p = 0.000$), urogenital ($p = 0.001$) subscales and total ($p = 0.000$) scale scores. There were significant differences between Turkish women's menopause age and whole MRS subscales and total scale scores (in order; $p=0.001$, $p=0.000$, $p=0.009$, $p=0.000$). But there was significant difference between German women's MRS somatic subscale score ($p=0.000$).

Conclusions: As a result of the statistical analysis; as the age of Turkish women increases, urogenital symptoms increases and as the age of German women increases, somatic, psychological and total symptoms increases. With decreased menopause age of Turkish women, the total symptoms increases and with decreased menopause age of German women, the somatic symptoms increases.

Key Words: Menopause, Menopause Rating Scale, Menopause Symptoms, Turkish Women, German Women.

Introduction

In recent decades, the life expectancy of women has increased thanks to higher living standards around the world, and the population of women older than sixty is steadily growing. The women in most developed countries spend one third of their life-span in the menopause phase (Ozdemir & Col, 2004).

This transition, therefore, introduces more health problems than the reproductive state, and results in women making more effort to overcome these problems. Whilst post-menopausal women comprise more than 15% of the population in developed countries, this figure decreases to 5 to 8% in less developed countries. It is estimated

that by 2030, the population of menopausal and post-menopausal women will exceed 1.2 billion, because 47 million women enter menopause annually (Saka et al, 2005; Krajewska-Ferishah et al, 2011).

In connection with a decline in estrogen levels, women experience hormone changes, physical effects and mood swings in this period. It is possible to classify these problems under two headings, i.e. long-term and short-term effects.

Whereas the short-term effects include vasomotor symptoms, vaginal atrophy and psychological changes, the long-terms effects consist of cardiovascular diseases and osteoporosis. One of the short-terms effects,

vasomotor changes, is associated with the onset of a rise in body temperature and vasodilation. These are also known as the most prevalent and disturbing symptoms of menopause (Hall et al, 2007).

In today's world, the national barriers are increasingly broken down by globalization and health professionals offer services to the people with different cultural backgrounds. Health professionals are also expected to be informed about the impacts of different cultures on menopause treatment. The findings of this study, therefore, would provide useful data to the health professionals offering their services to menopausal women with different cultural backgrounds. Located in the South-East of Turkey, Alanya is a component district of Antalya, where married couples from different countries prefer to live after their retirement. It is reported that Germany comes first with 4,655 people who have acquired real-estate in Alanya. This figure is respectively followed by 4,226 people from Denmark and 3,181 people from Ireland (Akbas, 2010). Hence, the scope of this study includes Turkish and German women.

The objective of this cross-national and descriptive research was to analytically and descriptively determine the statistical differences between Turkish and German women's menopausal symptoms.

Material And Methods

Study Sample

German people, who are in the first place among those owning property with 4,655 people among other foreign nationals in Alanya (Akbas, 2010). When we wanted to reach German women, we connected with members of their associations, journals, charity foundations, traditional entertainment, monthly meetings, bazaars and so on. Furthermore, we got help from site managers who are staying with Germans.

Turkish women aged 39 to 70 years were eligible to participate in this study. This survey has been carried out with Turkish women in bazaars, and craft courses of Public Education Centers in Alanya. Self-reported menopause status was determined by the following: menstrual periods stopped more than 12 months ago. The study was conducted among menopausal Turkish and German women living in Alanya. We couldn't find the exact number of

German women so we surveyed German women first. All German women who were included in the study with the snow ball sampling method accepted participation. In this direction, firstly, 160 German women were reached. After that, 160 Turkish women were surveyed.

Instruments

This study was carried out from 15 February 2012 to 15 April 2012 in Alanya in Antalya. The data "Personal Information Form" and "Turkish and German Menopause Rating Scale" were used and were collected in both cultures face to face in about 15 minutes.

Personal Information Form

This form included participants's descriptive characteristics information and was based on the literature (Yangin, Kukulcu & Sozer, 2010; Im, 2009; Leon et al, 2007; Strayer & Caple, 2010; Ayranci et al, 2010) by the researcher. Descriptive characteristics questions included: age, educational level, monthly income, work status, marital status, status of children, menopause age, menopause duration and menopause type.

The Menopause Rating Scale

The Menopause Rating Scale (MRS) was obtained from Professor Heinemann from The Berlin Center of Epidemiology and Health Research (Heinemann, Potthoff & Schneider, 2003). For the purpose of this research, the German and Turkish versions of the MRS were used. The Turkish version had been validated in the Turkish language by Can Gurkan (Gurkan, 2005).

The MRS Scale measures changes over time and across different cultures (the MRS scale is available in 27 languages). The MRS is composed of 11 items assessing menopausal symptoms divided into three subscales: (a) somatic—hot flushes, heart discomfort, sleeping problems and muscle and joint problems (items 1–3 and 11, respectively); (b) psychological—depressive mood, irritability, anxiety and physical and mental exhaustion (items 4–7, respectively); and (c) urogenital—sexual problems, bladder problems and dryness of the vagina (items 8–10, respectively). Each item can be graded by the subject from 0 (not present) to 4 (1 = mild; 2 = moderate; 3 = severe; 4 = very severe). For a particular individual, the total score for each subscale is the sum of each

graded item contained in that subscale. Total MRS score is the sum of the scores obtained for each subscale. For the purposes of this research the Turkish and German Validated Version of the Menopause Rating Scale was used (Gurkan, 2005).

The MRS used in the study is related to the German and Turkish versions of the Chronbach alpha internal consistency coefficient obtained in Table 1.

Statistical Methods

Analysis

Analysis was performed using SPSS software (version 20.0). Frequencies and descriptive statistics were used to summarize demographics for total evaluation of the data, percentage and Chi-square test, Spearman correlation analysis was used. *P*-value of $p < 0.05$ was considered statistically significant.

The Limitations of the Study

- The data were merely comprised of the subjects' own statements. No observational analysis was carried out throughout the data collection.
- The present study includes only the data taken from the subjects whose place of residence was Alanya. No precise data were reported regarding the previous residence details of the German women.
- The subjects were selected randomly.

- The subjects' home countries were different with regard to their educational system (i.e. compulsory education period) and economic status.

Cultural bias

For reduction of cultural bias, all instruments, including questionnaires and participant information sheets, were translated into German, translated back into Turkish, and then independently checked by a native German translator who is fluent in both German and Turkish to ensure that correct translation had taken place.

Results

Questionnaires were given to Turkish women ($n = 160$) and German women ($n = 160$). Mean age of Turkish women participating in the study was 56 ± 7.33 , and of German women was 62 ± 7.85 . About forty-six percent of Turkish women's monthly income was between \$600-1200, whereas forty-five percent of German women's monthly income was \$1800 and above. Looking at the status of marriage, the majority of Turkish (93.1%) and German (84.4%) women were married and all of the Turkish women had children. Mean menopause age of Turkish women was 47 ± 4.22 . Similarly, it was 47 ± 5.58 for German women. 48.8 % of Turkish women, and 57.1% of German women had been menopausal for 1-4 years (Table 2).

Table 1. Chronbach's Alpha Values for Turkish and German Version and this study of the Menopause Rating Scale

MRS subscale	Number of Items	Obtainable upper and lower values	Chronbach's Alpha Values			
			(Gurkan, 2005) Turkish women	(Schneider et.al., 2002) German Women	This Turkish Women	study German Women
Somatic	4	0-16	0.65	0.64	0.57	0.70
Psychological	4	0-16	0.79	0.86	0.75	0.86
Urogenital	3	0-12	0.72	0.63	0.67	0.70
The total MRS Cronbach's Alpha	11	0-44	0.84	0.84	0.78	0.83

Table 2. Sociodemographic characteristics and menopausal data of Turkish and German women included in the study

Sociodemographic Characteristics	Turkish Women	German Women
Age (Mean±S.D)	56±7.33	62±7.85
Education Level, n(%)		
Primary School	51 (31.9)	1 (0.7)
Secondary School	32 (20.0)	3 (2.0)
High School	55 (34.4)	93 (62.0)
University	22 (13.8)	53 (35.3)
Total	160 (100.0)	150 (100.0)
Monthly Income (\$) n(%)		
250 - 570	28 (18.5)	2 (2.2)
571 - 1140	70 (46.4)	20 (22.0)
1141–1.710	52 (34.4)	28 (30.8)
1711 and upper	1 (0.7)	41 (45.0)
Total	151 (100.0)	91 (100.0)
Work Status, n(%)		
Working	13 (8.1)	21 (13.1)
Does not work	95 (59.4)	57 (35.6)
Retired	52 (32.5)	82 (51.3)
Total	160 (100.0)	160 (100.0)
Marital Status, n(%)		
Married	148 (93.1)	135 (84.4)
Single	11 (6.9)	25 (15.6)
Total	159 (100.0)	160 (100.0)
Status of Child, n(%)		
Yes	160 (100.0)	133 (83.1)
No	0	27 (16.9)
Total	160 (100.0)	160 (100.0)
Menopause Age (Mean±S.D)	47±4.22	47±5.58
Menopause Duration (y), n(%)		
1-4	78 (48.7)	76 (57.1)
5-8	63 (39.4)	52 (39.1)
9-13	19 (11.9)	5 (3.8)
Total	160 (100.0)	133 (100.0)
MenopauseType, n(%)		
Natural	147 (91.9)	128 (80.0)
Surgical	13 (8.1)	32 (20.0)
Total	160 (100.0)	160 (100.0)

Table 3. The MRS scores mean per subscale and symptom according to country

MRS Subscale and Symptoms	Turkish Women	German Women	p value*
	n(160) (Mean±SD)	n(160) (Mean±SD)	
Somatic	6.2±3.2	5.1±3.6	0.004
1 Hot Flushing	2,6±0.9	2.6±1.4	0.888
2 Heart discomfort	2,3±1.0	1.8±1.1	0.000
3 Sleeping problems	2,7±1.1	2.4±1.2	0.024
11 Muscle and joint problems	2,6±1.2	2.3±1.3	0.041
Psychological	5.9±3.3	4.3±3.9	0.000
4 Depressive mood	2,5±1.1	2.0±1.1	0.000
5 Irritability	2.6±1.1	2.2±1.2	0.007
6 Anxiety	2.2±1.0	1.2±1.2	0.029
7 Physical and mental exhaustion	2.5±1.0	2.2±1.1	0.032
Urogenital	3.5±2.5	2.6±2.4	0.002
8 Sexual problems	2.2±1.0	1.9±1.1	0.008
9 Bladder problems	2.1±1.0	1.9±1.1	0.055
10 Dryness of the vagina	2.0±1.0	1.8±1.0	0.004
Total score	15.6±7.3	12.1±7.8	0.000

Mean±S.D. Independent-samples T test *p<0.05

Table 4. The MRS scores correlation and p value per subscales and total according to some characteristics

			MRS SUBSCALE SCORE			MRS TOTAL SCORE
			Somatic	Psychological	Urogenital	
			Age	Turkish Women	r	0.082
		p	0.302	0.055	0.047	0.050
	German Women	r	0.284	0.044	0.166	0.221
		p	0.000	0.581	0.030	0.005
Menopause Age	Turkish Women	r	-0.194	-0.336	-0.153	-0.273
		p	0.014	0.000	0.053	0.000
	German Women	r	-0.170	0.064	-0.079	-0.068
		p	0.032	0.423	0.323	0.396

Table 5. Severity status of menopausal symptoms

Menopausal Symptoms	Country	Severity Status (%)					n % total
		0 not present	1 mild	2 moderate	3 severe	4 very severe	
Hot Flusing	Turkish women	6.3	47.5	31.3	8.1	6.8	100
	German women	25.6	30	17.5	12.5	14.4	100
Heart discomfort	Turkish women	25.6	34.4	28.8	8.1	3.1	100
	German women	55.6	21.3	15	4.4	3.7	100
Sleeping problems	Turkish women	20	20	36.9	19.4	3.7	100
	German women	28.1	29.4	27.5	6.9	8.1	100
Depressive mood	Turkish women	18.8	32.5	30	15.6	3.1	100
	German women	48,1	18,8	25	4,3	3,8	100
Irritability	Turkish women	19.4	28.1	31.2	16.9	4.4	100
	German women	38.1	18.7	28.8	10	4.4	100
Anxiety	Turkish women	31.3	26.3	31.8	8.1	2.5	100
	German women	51.9	15.6	19.4	10	3.1	100
Physical and mental exhaustion	Turkish women	26.8	16.3	42.5	11.9	2.5	100
	German women	38.8	18.7	28.7	11.3	2.5	100
Sexual problems	Turkish women	36.9	18.7	32.5	10.6	1.3	100
	German women	52.5	16.8	21.9	7.5	1.3	100
Bladder problems	Turkish women	33.8	25	31.2	9.4	0.6	100
	German women	48.1	21.9	20.6	5.6	3.8	100
Dryness of the vagina	Turkish women	36.3	31.3	23.7	5.6	3.1	100
	German women	49.4	23.8	26.8	0	0	100
Muscle and joint problems	Turkish women	18.7	31.3	28.1	13.1	8.8	100
	German women	38.1	16.8	28.8	6.3	10	100

In the present study, it was found that 47.5% of the Turkish subjects and 30.0% of the German subjects experienced mild hot flashes. 34.4% of the Turkish subjects were found to suffer from mild cardiovascular diseases, whilst no relevant data were reported from 55.6% of the German subjects. Furthermore, 36.9% of the Turkish subjects reported moderate sleep disorders and 29.4% of the German subjects experienced mild sleep disorders. 32.5% of the Turkish subjects suffered from moderate depression, whereas

there were no similar symptoms in 48.1% of the German subjects at menopause stage. The current study also shows that 31.3% of the Turkish subjects were reported with moderate aggression, however no relevant data were found in 38.1% of the German subjects and only 28.8% of the German subjects were reported with moderate aggression. 36.9% of the Turkish subjects did not experience any sexual problems at menopause stage, but 32.5% of these women were reported with sexual problems at moderate

levels. Moreover, 52.5% of the German subjects did not experience any sexual problems. The study findings demonstrate that 33.8% of the Turkish subjects did not show any bladder problems, and 31.3% of the Turkish subjects were reported with bladder problems at moderate levels. 48.1% of the German subjects did not experience any bladder problems, and 21.9% of these subjects were found to have bladder problems at mild levels. The study found that 31.3% of the Turkish subjects experienced mild vaginal dryness followed by 23.8% describing them as moderate. Besides, 36.3% of the Turkish subjects showed no symptoms of vaginal dryness. On the other hand, 26.9% of the German subjects experienced moderate vaginal dryness, while 49.4% of these subjects did not suffer from vaginal dryness. It is also interesting to note that none of the German subjects were reported with “severe” or “extreme” vaginal dryness. Finally, 31.3% of the Turkish subjects were found to have mild muscle and joint disorders, whereas only 28.8% of the German subjects were reported in the same category at moderate levels (Table 5).

Discussion

Socio-cultural elements and factors are known to have an effect on menopause. Menopausal period has a significant cultural impact such as traditions, the ethnic structure of the value given by society to the elderly and women, the role of women, sexuality, women's life philosophy, and women's and society's menopause loads all affect cultural characteristics (Yangin, Kukulcu & Sozer, 2010; Leon et al, 2007; Ayranci et al, 2010). In addition, the women's age, parity, and hormonal status have been associated with cultural characteristics (Leon et al, 2007; Pan et al, 2002; Discigil et al, 2006). In this cross-cultural study, the levels of Turkish and German women affected by menopausal symptoms were examined using MRS scale.

Mean menopause age of Turkish and German women may differ between the cultures. According to the Turkey Menopause Society (2003), the age of menopause in Turkey was determined to be 47 (Ertunçalp, 2003). The average age of menopause ages ranged from 52.8 to 50.1 in Europe, 50.5 to 55.4 in North America, 43.8 to 53 in Latin America and 42.1 to 49.5 in Asia (Palacios et al, 2010). In a study conducted with German women, the menopausal age was 49.4 (Kowalcek et al,

2005). In this study, Turkish and German women were similar in menopausal age.

Several reports indicate that the frequency and intensity of menopausal symptoms correlates with ethnicity. In this sense, the present research found that the intensity of menopausal symptoms among Turkish women, as measured with the total MRS score, was higher than in German women. The postmenopausal women MRS mean score was found to be 13.2 ± 2.4 by Chedraui et al.(2007), in a study of women from different cultures (Chedraui et al, 2007). Monterrosa et al. (2008) found MRS mean scores of 7.5 ± 5.7 in non-Afro-Colombian women, and 10.6 ± 6.7 in Afro-Colombian women (Monterrosa, Blumel & Chedraui, 2007).

Krajewska-Ferishah et al (2010) did not generally find significant differences in the reported complaints on the MRS scale. They also noted that more Belgian women reported marked complaints on the MRS scale compared with complaints of respondents from Belarus, Greece and Poland. They only found a significant difference in the urogenital and sexual problems between Belgian and Belorussian women. Total MRS scoring obtained from Greek women was higher than that from Belorussian ones. A significant difference was found in the urogenital and sexual symptoms between Belgian and Belorussian women.

The frequency of menopausal symptoms was found to be significantly higher among Belgian women in comparison to the Belorussian ones (Krajewska-Ferishah et al, 2010). In our study, though all symptoms were reported, the proportion of women reporting symptoms listed in MRS varied. In general, somatic, psychological, urogenital and total mean MRS scores were higher in Turkish women than in German women ($p < 0.05$). Excluding hot flushing and bladder problems, there were significant differences between Turkish and German women in MRS mean scores per symptom. In our study, Turkish women's MRS mean scores were higher than previous studies. The status of women in Turkish society is gaining productivity in the community. With menopause, productivity ends and women can experience more and more intense symptoms.

In our study, German women experienced hot flushing and anxiety more severely than Turkish women, but other menopausal symptoms

(cardiac discomfort, sleeping problems, depression, irritability, sexual problems, bladder problems, dryness of vagina, muscle and joint disorders) are milder. Vasomotor symptoms are the most common and earliest symptoms of menopause. These changes are in correlation with the progressive decrease in ovarian steroid production, especially estrogens, which have been associated with thermal regulation and could explain increased vasomotor symptoms among postmenopausal women with the highest estrogenic deficiency (Chedraui et al, 2007; Freedman, 2005). The Freeman and Sherif's (2007) systematic review study about the prevalence of hot flushes and night sweats determined the degree of postmenopausal women in the prevalence of hot flushes: the range was 8–80%, with a median of 41.5% (Freeman & Sherif, 2007). Previous studies have shown that German women who were found to have hot flushes rated 33.3–67% (Kowalcek et al, 2005; Nappi & Nijland, 2008), while in Turkish women the hot flushes rate was 25–82% (Guney, 2006; Tortumluoglu & Erci, 2006; Isik & Vural, 2001). Half of German women never experienced vaginal dryness symptoms, while others suffered mild to moderate symptoms.

One third of Turkish women had no vaginal dryness symptoms, one-third experienced mild to severe and 36.9% Turkish women faced no sexual problems. Sexual health concerns of menopausal women include decreases in sexual interest, arousal, lubrication, and orgasm, and increases in sexual pain, all of which may be associated with distress (Goldstein, 2007). Vaginal dryness occurs as a result of a reduction in the superficial gland secretions, elasticity and blood flow, and a thinning of the epithelium of the cervix and vagina (Cano et al, 2012). In the treatment of vaginal dryness, Hormone Replacement Therapy (HRT) or local hormone therapy (vaginal creams, vaginal tablets, etc.) is recommended (Cano et al, 2012; Carranza-lira, 2009; Ziaei, Moghasemi & Faghihzadeh, 2010).

Previously conducted studies among Turkish women aged 40–65 found the incidence of vaginal dryness to be 47% (Kisa & Ozdemir, 2013). In German women, the incidence of vaginal dryness was 19–26.4% (Leiblum et al, 2009). In our study, Turkish women also had more sexual problems than German women. In Turkish society, talk about sex and sexuality is still a taboo subject, especially for women. Sexual life can only be talked about with very

close friends (Cebeci, Yangin & Tekeli, 2012). Medical assistance on this subject is referred to as the last resort. In countries where sexuality is taboo, to experience more vaginal dryness may be caused by cultural differences. German women may also experience fewer sexual problems due to taking more medical assistance than Turkish women.

Conclusion

As a result, in this study, Turkish women's MRS subscale and total scores were higher than German women. Turkish women are experiencing menopausal symptoms more than German women. This difference is due to the fact that the socio-cultural characteristics of Turkish women are different from those of German women.

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