

Role of the body self and self-esteem in experiencing the intensity of menopausal symptoms

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Summary

Aim. The aim of the study was to test differences in self-esteem and strength of the body self, body image, comfort with closeness with others and body protection among women reporting high and low intensity of psychological, vasomotor and somatic symptoms of menopause.

Method. The sample included 201 women aged 45–55 years. The Menopause Symptom List was used to test the intensity of menopausal symptoms, the Body Self Questionnaire was used to diagnose the body self, and the Rosenberg Self-Esteem Scale was used to examine participants' levels of self-esteem. Differences between women experiencing high and low intensity of symptoms were analyzed using Student's *t*-test for independent samples.

Results. Women experiencing high-intensity psychological, vasomotor and somatic symptoms of menopause showed significantly lower self-esteem and poorer body-self functioning in all its dimensions except for body protection.

Conclusions. Women experiencing high-intensity psychological, vasomotor and somatic symptoms of menopause demonstrated poorer functioning of the body self and lower self-esteem

Key words: body self, menopausal symptoms, self-esteem

Introduction

The varied intensity of menopausal symptoms arising from hormonal changes, especially vasomotor symptoms, and those without such origin suggest that their onset and intensity might be modified by the presence of non-hormonal factors [1]. Multiple research conducted in several countries has shown the majority of menopausal symptoms, excluding above-mentioned hot flushes, drenching sweat and urogenital complaints, including vaginal dryness, to likely have a psychological origin [2–5]. Contradictory data led researchers to conduct more in-depth and precise analyses of variables related to the experience of menopausal symptoms, as experiencing

psychological menopausal symptoms was found to be better correlated with various psycho-social factors than with menopausal status [5–7].

Among the determinants of the menopausal symptom experience, particular attention is given to the issue of body image, which is particularly significant for the emotional functioning of women as well as being likely related to the socially-approved attitudes and beliefs about the shape and size of the body [8]. A study by Deeks and McCabe [9] has found menopausal women to be characterized by a negative body image and experiencing negative emotions with respect to what their bodies looked like and how they functioned. Chrisler and Ghiz [10] suggested that menopausal symptoms are conducive to irregularities in the body image and may lead to the feelings of having no control over one's body. In turn, F. Reynolds [11] demonstrated that women with increased body awareness experienced more intense vasomotor symptoms, whereas a study by Koch et al. [12] showed that perception of one's attractiveness is independent of women's age and menopausal status.

Another source of information on the determinants of experiencing menopausal symptoms in the context of the body and self-esteem is A.T. Veeninga and F.W. Kraaimaat's *Multifactorial model as applied to the development of bodily experiences and mood states during the climacteric* [13]. Within this model, menopausal symptoms are defined in terms of psychological experiences. Hormonal changes that take place in the woman's body also cause bodily changes to occur (e.g., hot flashes, vaginal dryness and irregular menstruating). The process of perceiving and evaluating menopausal symptoms is modified by factors such as the excessive attention paid to the stimuli coming from within the body and the socially-produced information on how these complaints should be interpreted as menopausal symptoms [13]. Another significant aspect is the woman's awareness of entering menopause, which allows for the experienced symptoms to be associated with this period [11].

The literature on the subject also emphasizes the role of self-esteem in experiencing menopausal symptoms. For instance, Hunter and Rendall demonstrated that women experiencing anxiety and stress as well as having low self-esteem also experienced psychological and vasomotor symptoms in a more intense way [5]. In turn, Bloch showed low levels of self-confidence to be correlated with a range of menopausal symptoms, in particular psychological ones [14], while Nosek et al. found self-esteem and body awareness to be correlated with coping with menopausal change [15]. Moreover, Ayers et al. observed that a negative perception of changes occurring during the menopause was correlated, among others, with low self-esteem and a negative attitude towards the menopause itself [16].

Aim

The aim of the study was to test differences in self-esteem, strength of the body self, and body image, as well as the two dimensions of functioning where body-self can manifest itself: body protection and comfort with closeness with others, among

women reporting high and low intensity of psychological, vasomotor and somatic symptoms of menopause.

The concept of the body self is yet to be unambiguously defined. Indeed, even David Krueger, the author of the body self concept, which is set in the psychodynamic paradigm, refrains from offering a single definition of the construct. On the one hand, Krueger describes the body self in terms of experiencing one's body, which he distinguishes from body image – the representation of one's body. On the other hand, however, he envisages the body self as a group of images concentrated around bodily experiences [17]. In his book *Body self and psychological self: Development and clinical integration in disorders of the self* (1989), D. Krueger distinguishes between the body self and body image by stating that “the body self seems to comprise a group of images which are dynamically and pre-consciously centered around bodily experiences” [17, p. 28]. In turn, he writes about body image: “the body self and its derivative representation – body image – are fluid processes related to the psychological self [...]” [17, p. 28].

This paper relies on the concept of the body self put forward by Sakson-Obada [18], which is an attempt to integrate a variety of approaches to the issue of corporeality. Sakson-Obada defines the body self as “an element of the self-structure organizing bodily experiences in the form of representations. It is the quality of these representations that determines how individuals experience themselves or in other words: it determines the physical sense of their identities” [18, p. 98]. “The sense of physical identity” (normal and stemming from optimal functioning) is understood as a preconscious state of wellbeing arising from “one's feeling at home in one's own body” [18, p. 98]. Within this psychodynamic paradigm, the body self is considered to be a subsystem of the self. In contrast to the psychological self, it is responsible for the mental processing of bodily sensations, which is made possible thanks to the three functions of the body self [18]:

- the first one, related to experiencing the sensations coming both from within the body (interoception) and being the outcome of stimulating extero-receptors (exteroception);
- the second one, related to interpreting sensations in terms of physical states¹ and emotions (and also – in the case of a weak body self – in terms of distorted sense of physical identity); and finally,
- the third one, related to regulation of physical and emotional states, defined as a ability to recognize the causes of these states and to employ adaptation strategies to cope with them [18].

¹ Under Sakson-Obada's concept [18, p. 99], physical states include hunger, thirst, fatigue, somnolence, the state of illness, and the state of sexual arousal. Other terms used when determining these states include: physical (physiological, bodily) needs.

Research hypothesis

Women showing high intensity of menopausal symptoms, versus those showing low intensity, are characterized by poor body self functioning and therefore a weaker body self, a negative emotional attitude towards the body, low comfort with closeness with others, and weak body protection and lower self-esteem.

Material and method

Study sample

The sample included 201 women aged 45–55 years, with a university degree in pedagogy (teachers). All women were married and lived in a large city with over 100,000 inhabitants. Age-wise, the most numerous group (14%) were women aged 48 and the least numerous (6%) – those aged 47 and 46 (Figure 1). Mean age ($N = 201$) was 50.11, $SD = 3.07$ (Figure 1). The mean age of this sample (50.11) was similar to the one calculated by Kaczmarek in a study of 7,183 Polish women aged 35–65, where mean age for the onset of natural menopause was found to be 51.25 years [19].

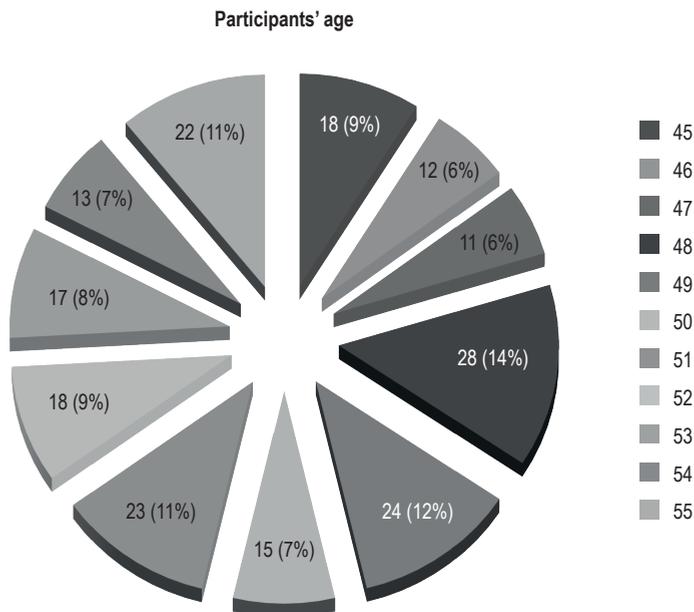


Figure 1. Age distribution in the sample ($N = 201$)

To determine participants' menopausal status, we used a STRAW-based² [20] survey querying regularity and duration of the menstrual cycle as well as the time and cause of cessation of menstruation. This gave basis to the finding that the respondents (at the time of the study) were in the early (24% = 49 women) and in the late (76% = 152 women) perimenopausal stage according to the STRAW classification (Figure 2).

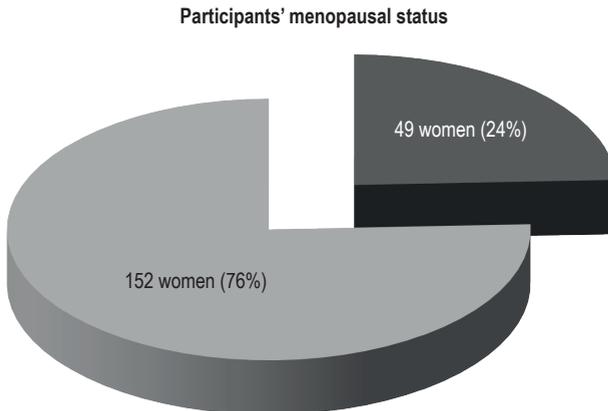


Figure 2. Menopausal status distribution in the sample

The study excluded all persons taking synthetic hormones and/or using HRT³ [21] as well as those whose medical treatment led to artificial menopause (e.g., surgeries to remove ovaries and/or womb).

To determine the intensity of psychological, vasomotor and somatic symptoms of menopause (Table 1), we used the *Menopause Symptom List* in the Polish adaptation by Bielawska-Batorowicz [22]. Reliability of the scale was calculated using the repeated measure method, and ranged between 0.51 and 0.92. Validity was determined based on correlations with the results of Green's Climacteric Symptom Rating Scale, and ranged between 0.39 and 0.89; $p < 0.01$ or $p < 0.05$.

² STRAW (Staging System for Reproductive Aging in Workshop) – tool proposed by a team of American, Canadian and Australian experts with a view to optimizing research on the physiology and pathology of the perimenopausal period.

³ HRT – hormonal replacement therapy

Table 1. Menopausal symptoms distinguished by Bielawska-Batorowicz (based on factor analysis) for the Polish adaptation of the *Menopause Symptom List*

Psychological symptoms of menopause	Vasomotor symptoms of menopause	Somatic symptoms of menopause
irritability, depressed feelings, excitability, tense feelings, moodiness, crying spells, worrying needlessly, poor concentration, and pressure or tightness in head or body	numbness and tingling sensation, loss of sensation in hands or feet, hot flushes, involuntary sweating, poor appetite, shortness of breath, palpitations, burning eyes, and cold hands and feet	weight gain, dyspareunia, sleeplessness, loss of sexual interest, early morning awakenings, constipation, headaches

Source: own elaboration based on Bielawska-Batorowicz [22].

Next, on the basis of data provided by the *Menopause Symptom List* and using Statistica 10 we identified the following (among the study group, $N = 201$):

- 132 women who experienced low ($N = 64$) and high intensity ($N = 68$) of psychological symptoms of menopause (Figure 3);

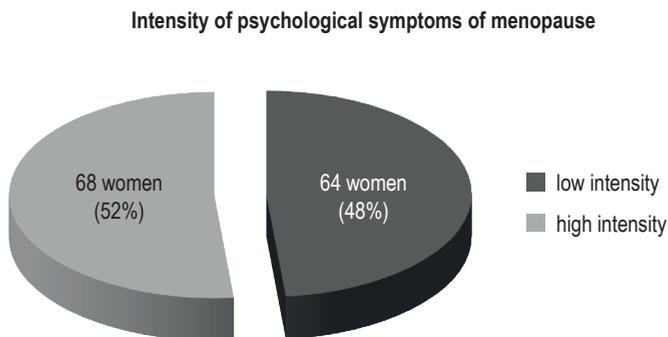


Figure 3. Distribution of psychological symptoms intensity in the study sample

118 women who experienced low ($N = 51$) and high intensity ($N = 67$) of vasomotor symptoms of menopause (Figure 4);

143 women who experienced low ($N = 56$) and high intensity ($N = 87$) of somatic symptoms of menopause (Figure 5);

To measure the body self, we used the *Body Self Questionnaire* developed by Sakson-Obada [18]. The questionnaire consists of 10 scales [18]:

- raised sensory thresholds, which Sakson-Obada defines as “a feeling that a strong stimulus fails to elicit a given sensation, or that the sensation is too weak” (for example, strong stimuli are hardly noticeable or not noticeable at all). The reliability coefficient for this subscale was Cronbach’s $\alpha = 0.735$;
- lowered sensory thresholds, defined as “a feeling that a weak stimulus elicits a sensation that is too strong” (for example, low-intensity stimuli are percei-

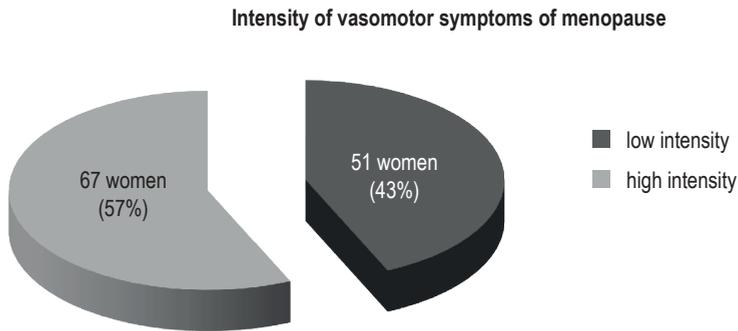


Figure 4. **Distribution of vasomotor symptoms intensity in the study sample**

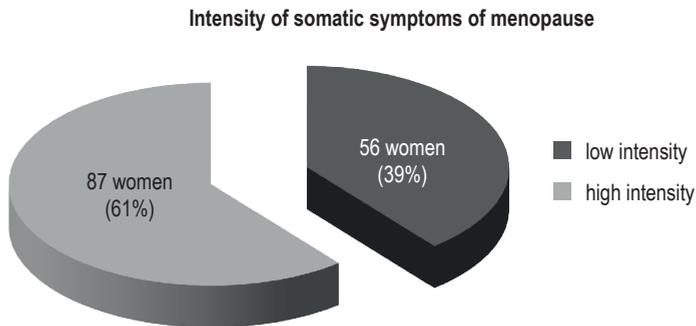


Figure 5. **Distribution of somatic symptoms intensity in the study sample**

ved as irritating or painful. The reliability coefficient for this subscale was Cronbach's $\alpha = 0.746$;

- interpretation of sensations in terms of emotions, that is, interpreting/recognizing one's sensations in emotional terms. A dysfunction in this area of the body self may be expressed through, e.g., inability to describe experienced physical arousal in emotional terms. The reliability coefficient for this subscale was Cronbach's $\alpha = 0.821$;
- interpretation of sensations in terms of physical states, that is, interpreting/recognizing one's sensations in physical terms. A dysfunction in this area of the body self may be expressed through, e.g., inability to identify experienced arousal as hunger or fatigue. The reliability coefficient for this subscale was Cronbach's $\alpha = 0.599$;
- interpretation of sensations in terms of a distorted sense of physical identity; of all the questionnaire's subscales, this is the one with the highest degree of correlation with experiencing body boundaries. A dysfunction in this area of the body self leads to describing one's experiences, e.g., in terms of a sense of

blurring body boundaries, feeling of emptiness and lack of coherence with the body. The reliability coefficient for this subscale was Cronbach's $\alpha = 0.837$;

- regulation of emotional states, which is related to knowing the cause of an emotion-induced bodily arousal, and coping with emotions (for example, an ability to contain negative emotions, and eliciting and maintaining positive ones). A dysfunction in this area of the body self may be expressed through helplessness about one's emotions (such as anger) or bodily states (sexual arousal), self-harm, or abusing alcohol to reduce negative emotions (such as sadness). The reliability coefficient for this subscale was Cronbach's $\alpha = 0.784$;
- regulation of physical states, which is related to knowing the cause of a bodily arousal and coping with these states – for example, ability to identify the arousal as hunger or fatigue, and taking action to reduce or eliminate these states. The reliability coefficient for this subscale was Cronbach's $\alpha = 0.738$;
- attitude/emotional attitude towards the body; a subscale measuring emotional attitude towards the body, which may be expressed through dissatisfaction with one's shape, weight and the appearance of one's body and its parts, or characteristics related to genital functioning, strength and fitness of the body, or satisfaction with the appearance and functioning of one's body. The literature [23] also describes this attitude as an emotional attitude to how the body looks and functions. The reliability coefficient for this subscale was Cronbach's $\alpha = 0.899$;
- comfort with closeness with others is related to experienced level of safety and comfort with physical closeness with other people, both close ones and strangers (in particular, these include physical contact in everyday situations unrelated to sexual activity, such as greeting gestures). The reliability coefficient for this subscale was Cronbach's $\alpha = 0.823$; and
- body protection; the last subscale of Body Self Questionnaire, which determines behaviors aimed at protecting and improving one's health – such as taking proper care of the body by using cosmetics, avoiding getting soaked or frozen and willingness to follow medical treatment when ill. The reliability coefficient for this subscale was Cronbach's $\alpha = 0.625$.

According to Sakson-Obada, the strength of the body self comprises experiencing and interpreting the sensations coming from within the body and taking action to cope with these states. The author emphasizes that the body self allows the individual to experience changes occurring in the body (the function of experience), bestow them with meaning (the function of interpretation), as well as to identify the causes of these changes and ways of coping with them (the function of regulation) [17].

To determine the level of participants' self-esteem, we used the Rosenberg Self-Esteem Scale (RSES) in the Polish adaptation by Lachowicz-Tabaczek, Dzwonkowska and Łaguna [24]. The scale's reliability ranges between $\alpha = 0.81$ and $\alpha = 0.83$ for different age groups. Construct validity of the RSES was tested via exploratory and confirmatory factor analysis and based on the scale's correlation with questionnaires

assessing, among others, depression, narcissistic personality, temperament, locus of control, optimism, basic hope, social competence, and shyness.

To analyze the empirical data, we used Statistica 10 software and performed Student's *t*-test for independent samples.

Results

The analysis (using Student's *t*-test for independent samples) showed that women with high and low intensity of psychological symptoms (see Table 2) differed with respect to all the examined body self dimensions (except for body protection), and self-esteem.

Table 2. Differences in the body self and self-esteem among women experiencing high ($N = 68$) and low ($N = 64$) intensity of psychological symptoms of menopause

Variable	Psychological symptoms intensity				t-statistics		
	X_{mean}		SD				
	Low ($N = 64$)	High ($N = 68$)	Low ($N = 64$)	High ($N = 68$)	t	df	p
Self-esteem	30.98	26.28	4.98	3.68	6.197	130	<0.01
Strength of the body self	2.02	2.72	0.37	0.42	10.034	130	<0.000
Emotional attitude towards the body	2.26	3.37	0.65	0.81	8.531	130	<0.000
Comfort with closeness with others	2.86	3.26	0.52	0.53	4.357	130	<0.001
Body protection	2.11	2.22	0.60	0.45	1.143	130	0.255

Women experiencing high intensity of psychological symptoms of menopause demonstrated a weaker body self, negative attitude towards the body, a lower degree of comfort with closeness with others as well as lower self-esteem.

Table 3. Differences in the body self and self-esteem among women experiencing high ($N = 67$) and low ($N = 51$) intensity of vasomotor symptoms of menopause

Variable	Vasomotor symptoms intensity				t-statistics		
	X_{mean}		SD				
	Low ($N = 51$)	High ($N = 67$)	Low ($N = 51$)	High ($N = 67$)	t	df	p
Self-esteem	31.29	27.13	3.68	4.58	5.311	116	<0.01
Strength of the body self	2.01	2.65	0.36	0.48	7.553	116	<0.01
Emotional attitude towards the body	2.18	3.18	0.61	0.89	6.777	116	<0.000
Comfort with closeness with others	2.91	3.24	0.60	0.49	3.253	116	0.001
Body protection	2.10	2.26	0.57	0.55	1.554	116	0.123

A similar pattern of results was also observed in participants experiencing high intensity of vasomotor and somatic symptoms of menopause (see Table 3 and 4).

Table 4. Differences in the body self and self-esteem among women experiencing high ($N = 87$) and low ($N = 56$) intensity of somatic symptoms of menopause

Variable	Somatic symptoms intensity				t-statistics		
	X_{mean}		SD		t	df	p
	Low ($N = 56$)	High ($N = 87$)	Low ($N = 56$)	High ($N = 87$)			
Self-esteem	31.07	26.77	4.34	4.07	6.017	141	<0.01
Emotional attitude towards the body	2.18	3.20	0.53	0.85	8.038	141	<0.000
Comfort with closeness with others	2.94	3.24	0.56	0.47	3.467	141	0.001
Body protection	2.10	2.29	0.61	0.52	1.875	141	0.063

Discussion

The findings confirmed our hypothesis that women experiencing high-intensity menopausal symptoms, compared with their low-intensity counterparts, are characterized by a poorer body-self functioning and lower self-esteem. This is consistent with findings of other studies on the role of corporeality in experiencing menopausal symptoms [e.g., 5–9].

It is assumed that the development of one's body self continues over the entire lifespan, with its course becoming particularly intensified with the onset of significant changes to the body and how it is experienced [25]. One of those crucial periods of life is the menopause. Research has shown, for instance, that the body self affects the menopausal symptom experience [26], with women who feel alienated from their bodies reporting higher numbers of menopausal symptoms. Another study has demonstrated that body-self functioning is correlated with intensity of psychological symptoms of the menopause [26]. This allowed for the conclusion that, when coupled with specific personality traits, menopausal women's negative attitudes towards their bodies and having little understanding of how their organisms function may lead to excessive concentration on the body and a sense of experiencing intense symptoms of menopause.

The literature also describes a relationship between corporeality, negative attitudes towards the menopause and the experience of menopausal symptoms [27–28], where a correlation has been found between negative body self evaluation and negative social attitude [29]. Moreover, attention has also been given to the relationship between attitudes towards the body and women's sexual and social functioning when transitioning through the menopause [30]. As it is emphasized in the literature, further studies are needed to fully examine the relationship between these variables, providing ample room for future research.

Another key issue of investigation in this area is the relationship between self-esteem and menopausal symptoms as well as body image [31]. Body image is a significant concept impacting on self-esteem, especially in older women. It has been found, for example, that experiencing intense menopausal symptoms was correlated with low self-esteem and negative body image [32–35], which we were also able to observe in this study. The role of self-esteem in experiencing vasomotor symptoms of menopause is given particular attention within the bio-psycho-socio-cultural perspective [5]. Low self-esteem and a negative perception on one's body was correlated with a higher intensity of experiencing menopausal symptoms, especially vasomotor ones. Moreover, it has been observed that low self-esteem was correlated with a negative attitude towards menopausal symptoms, which, in turn, was associated with experiencing a higher intensity of hot flushes [5].

Conclusions

The body self plays an important part in the intensity of experienced menopausal symptoms. Participants with high and low intensity of psychological, vasomotor and somatic symptoms of menopause differed with regard to self-esteem levels and body-self functioning. Women experiencing high-intensity psychological, vasomotor and somatic symptoms of menopause demonstrated poorer functioning of the body self and lower self-esteem.

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