Can the intensity of menopausal symptoms be modified? The pilot study of the effects of an intervention programme designed for 48-54-year-old women

Czy można modyfikować objawy menopauzalne? Badania pilotażowe efektów udziału w programie psychoedukacyjnym dla kobiet w wieku 48–54 lat

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Przegląd Menopauzalny 2011; 1: 58–62

Summary

Objectives: Psychological interventions are effective ways to modify experience of menopause. They provide evidence-based data on menopausal transition and develop skills for symptoms' management. The designed intervention programme included information on hormonal mechanisms, symptoms and the impact of menopause on health, and offered exercises aimed at recognition of bodily sensations and their control. A study was conducted to evaluate its effects.

Design: Cross-sectional, with two-week follow-up.

Material and methods: Women aged 48-54 yrs were recruited at meetings of non-governmental organizations and divided into 2 groups (study, $n = 30$ and control, $n = 30$). Participants filled in (time 1): demographic questionnaire, Menopause Symptoms List (MSL), Type D Personality Questionnaire (DS-14), Menopause Representation Questionnaire (MRQ). At time 2 (2 weeks after the intervention) all women filled in MSL and MRQ. The study group evaluated the intervention immediately after it and 2 weeks later.

Results: The study group reported a significant ($p < 0.001$) decrease in intensity and frequency of vasomotor and psychological symptoms, and a decrease in intensity of somatic symptoms; more positive attitudes towards menopause ($p < 0.001$) were expressed. In both groups, a significant correlation was found for frequency and intensity of all types of symptoms and DS-14 scores ($p < 0.001$). Positive opinions on the workshop increased with the time.

Conclusions: The findings indicate the potential to change experiences by the designed psychological intervention. A relatively short follow-up requires cautious interpretation of the effects of the programme.

Key words: menopause, menopausal symptoms, psychological intervention.

Streszczenie

Cel pracy: Analiza okresu okołomenopauzalnego uwzględnia psychologiczne uwarunkowania występujących objawów; stosowane są także interwencje psychologiczne ukierunkowane na modyfikację sposobu doświadczania przejścia menopauzalnego. Celem pracy była ocena efektywności nowo opracowanego programu interwencyjnego oferowanego w formie zajęć warsztatowych, który zawierał oparte na faktach informacje o okołomenopauzalnych zmianach hormonalnych i ich oddziaływaniu na stan zdrowia, a także proponował metody prawidłowego rozpoznawania doznań płynących z ciała, ich interpretacji i kontroli.

Materiał i metody: Przeprowadzono badanie przekrojowe z dwiema grupami i powtórnym pomiarem. Uczestniczyło w nim 60 kobiet w wieku 48–54 lat, w tym 30 (grupa S) wzięło udział w programie interwencyjnym. Przed rozpoczęciem programu obie grupy wypełniły: ankietę demograficzną, „Moje samopoczucie" (*Menopause Symptoms List* – MSL), Kwestionariusz osobowości typu D (DS-14), polską wersję *Menopause Representation Questionnaire* (MRQ). W 2 tyg. po programie interwencyjnym wszystkie badane wypełniły ponownie MSL i MRQ. Uczestniczki programu oceniały go bezpośrednio po zakończeniu zajęć i 2 tyg. po nim.

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Wyniki: W grupie S zaobserwowano istotne zmiany ($p < 0{,}001$) objawów: spadek częstości i intensywności objawów wazomotorycznych i psychicznych oraz spadek intensywności objawów somatycznych. Pojawiły się bardziej pozytywne postawy wobec menopauzy ($p < 0{,}001$); częściej była ona traktowana jako nowa faza w życiu, której przebieg można kontrolować. Wspomniane zmiany nie dotyczyły kobiet, które nie uczestniczyły w programie interwencyjnym. U wszystkich kobiet wskaźniki osobowości typu D istotnie statystycznie korelowały z większym natężeniem objawów menopauzalnych.

Wnioski: Weryfikowany program interwencyjny w istotny sposób zmienił sposób, natężenie objawów oraz postawy wobec menopauzy. Ze względu na krótki okres obserwacji efektów wskazana jest dalsza analiza skuteczności programu.

Słowa kluczowe: menopauza, objawy menopauzalne, interwencja psychologiczna.

Introduction

Menopause – an event marking the end of female reproductive ability – is analyzed both from the medical and social science perspective. Within the biomedical paradigm, hormonal replacement therapy (HRT) is used to control the intensity of menopausal symptoms. For the social science approach, other ways seem to be more appropriate [1]. The results of our previous studies on menopause point out to effects of personality and temperament on symptoms [2] and the role of attitudes towards menopause in the process of menopausal transition [3, 4]. These research findings provide background for the use of psychological intervention to modify the way individual women experience menopause and their lifestyle around the transition. The analyses of some authors [5, 6] support the idea that cognitive and behavioural intervention that take into account the appraisal of symptoms and their social context, could improve women's experiences and change the way women conceptualize menopausal symptoms. In studies conducted in other countries it was found that the extent to which hot flush is perceived as a problem is linked more with a woman's perception of her ability to cope with the flush and less with the frequency or intensity of this symptom [7, 8]. Thus, the modification of cognitive appraisal might at least bring a change in the perception of symptoms if not in their real intensity. Other strategies of psychological intervention were used as well. They included progressive muscle relaxation, hypnosis, paced respiration, meditation, etc. The effectiveness of these strategies varies with the length of the follow-up, however a 35% to 70% decrease in indexes of hot flushes is observed [9]. The non-hormonal management of symptoms might be welcomed by menopausal women, especially in the context of side effects of HRT or contraindications of its use [9, 10].

The accumulated findings point out to effectiveness of cognitive interventions [5, 11, 12]. Such interventions provide evidence-based data on menopausal transition and its mechanisms, and at the same time offer women an opportunity to develop and practice skills that can help them with symptoms management. The change of women's attitudes to menopause, usually based on stereotypes related to menopause and aging [13], should be the other aim of intervention programmes. Such attitudes often shape women's expectations related to their own menopausal experiences and thus might affect both the perception of bodily sensations and their conceptualization.

Aims of the study

The purpose of the study was to evaluate effects of an intervention programme designed for menopausal women and aimed at management of menopausal symptoms. It was assumed that women participating in the intervention programme would change their approach to menopause, gain skills necessary for proper recognition and interpretation of bodily sensations, and would get an opportunity to learn stress management techniques. It was assumed that effects of the programme would be reflected in change of severity of symptoms as reported by participants.

Material and methods

The intervention programme

The content of the intervention programme was designed and the form of a workshop was chosen as most appropriate to deliver this content. Information on hormonal mechanisms of the menopausal transition, menopausal symptoms and the impact of menopause on health was delivered in short lectures with multimedia presentations. Discussion (panel or small groups) was encouraged to enable women to talk on their individual experiences and ideas related to menopause, including self-image, family, couple relations, and sexual activity. Exercises aimed at proper recognition of bodily sensations and their control were included. Visualization and elements of yoga were used. Women were offered initial training on stress management and relaxation techniques. The whole programme was delivered during one training day (6.5 hrs) in groups of up to 10 women. All the workshops were run by the first author. The full description of the intervention programme and its detailed outline is given elsewhere [14].

Participants

To examine effects of the intervention programme, a study was conducted. The participants were women aged 48-54 with secondary or higher education, recruited among those who were involved in activities organized by a non-governmental organization (Międzynarodowa Fundacja Kobiet w Łodzi). The participants were divided into the study group (S) (n = 30) and the control group (C) (n = 30). Group S comprised women who volunteered to participate in the workshop described above. Both groups were similar in their menopausal status (percentages of menstruating irregularly or not menstruating for 12 months, none with artificial menopause). Of all participants 26.7% were on hormonal replacement therapy (HRT) and 15% on herbal remedies, in 6.7% – osteoporosis and in 25% – hypertension was diagnosed, 41.7% of them were smoking, and 53.3% had mammography in the last two years. These characteristics were similar for study and control groups.

Measures

All women filled in (time 1) the demographic questionnaire, and the Polish versions of the following measures: Menopause Symptoms List by Perz (MSL) [15], Type D Personality Questionnaire by Denolett (DS-14) [16], Menopause Representation Questionnaire by Hunter & O'Dea (MRQ) [17]. The study group (S) participated in the workshop and 2 weeks later (time 2) filled in MSL and MRQ for the second time. The control group (C) filled in the same measures at time 2 – two weeks after the first questionnaires. Thus, for both group S and group C the interval between two questionnaires was the same. The study group was asked to evaluate the workshop immediately after it and 2 weeks later. For this purpose an evaluation questionnaire was designed. For statistical analyses the Student t-tests for independent and dependent groups were used, Pearson correlation coefficients were computed; $p < 0.05$ was applied in all analyses.

Results

Change in symptoms

There were no significant differences in menopausal symptoms (MSL scores) between the study and the control group at time 1. In the study group (S), several significant changes in the reported symptoms were observed when time 1 and time 2 data were compared – see S t1 and S t2 on Fig. 1. These include decreased intensity and frequency of vasomotor symptoms (Vaso) ($p < 0.001$), and psychological symptoms (Psych) ($p < 0.001$), and the decreased intensity of somatic symptoms (Soma) ($p < 0.001$). No such changes were recorded in the control group (C) – see C t1 and C t2 on Fig. 1.

Attitudes to menopause

After the workshop, women from group S revealed more positive attitudes towards menopause (MRQ scores) – see S t1 and S t2 on Fig. 2. They more often considered it as a new phase in life (New Phase) ($p < 0.001$), felt more in control over it (Control) ($p < 0.001$), and more often perceived menopausal transition as a kind of relief from burdens (Relief) ($p < 0.01$). At the same time, women from group S started to consider menopause as less negative than before (Negat) ($p < 0.01$). Such changes were not recorded in the control group – see C t1 and C t2 on Fig. 2.

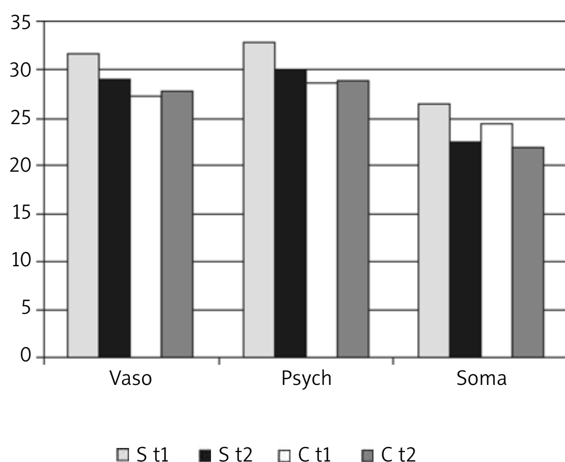

Fig. 1. Change in intensity of symptoms (MSL scores) over time in group S (S t1 vs. S t1 – significant) and group C (C t 1 vs. C t2 – non-significant).

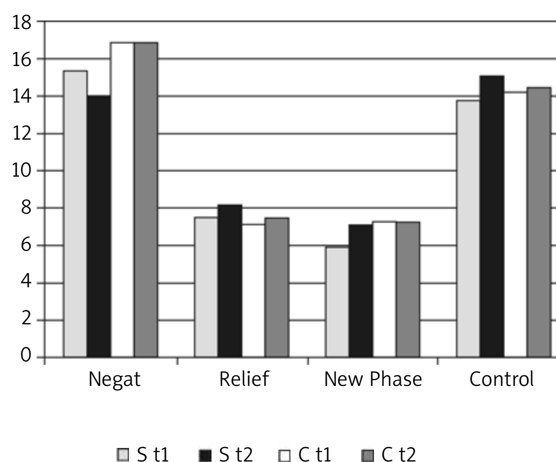

Fig. 2. Change in attitudes towards menopause (MRQ scores) over time in group S (S t1 vs. S t1 – significant) and group C (C t1 vs. C t2 – non-significant).

Tab. I. Pearson r correlation coefficients for DS-14 subscales and menopausal symptoms (MSL) scores

Attitude/symptoms	DS-14 HS	DS-14 NE
Vaso t1	.690*	.643*
Vaso t2	.645*	.583*
Psych t1	.733*	.623*
Psych t2	.682*	.578*
Soma t1	.642*	.573*
Soma t2	.604*	.535*

** p < .01; t1 – time 1, first measurement; t2 – time 2, second measurement; Vaso – vasomotor; symptoms; Psych – psychological symptoms; Soma – somatic symptoms; HS – social inhibition; NE – negative emotions*

Tab. II. Pearson r correlation coefficients for DS-14 subscales and attitudes (MRQ) scores

Attitude/symptoms	DS-14 HS	DS-14 NE
Negat t1	-.019	-.106
Negat t2	-.011	-.035
Relief t1	.280	-.169
Relief t2	.011	-.130
New Phase t1	-.019	-.070
New Phase t2	-.015	-.008
Control t1	-.210	-.258
Control t2	-.219	-.245

t1 – time 1, first measurement; t2 – time 2, second measurement; Negat – MRQ Negative attitudes scale scores; Relief – MRQ Relief scale scores; New Phase – MRQ New phase scale scores; Control – MRQ Control over menopause scale scores; HS – social inhibition; NE – negative emotions

Personality and menopausal symptoms and attitudes

There were no significant differences in Type D Personality Questionnaire (DS-14) scores in both groups, thus groups S and C were combined for the analyses presented below.

The findings indicate the role of personality in the way menopausal symptoms are experienced. The significant correlation was found for intensity of all types of symptoms (MSL scores) and social inhibition (HS) and negative emotions (NE) – two scales of DS-14 (all Pearson r significant at $p < 0.01$) – see Table I. The same was not found for correlation between DS-14 and MRQ scores – see Table II. Thus, type D personality traits do not affect the attitudes towards menopause, but might increase the intensity of menopausal symptoms. The Pearson r coefficients were lower at time 2 (Table I), what might indicate the effect of lower intensity of symptoms in women who participated in the workshop.

Women's opinion on the workshop

The women expressed generally a positive opinion on the workshop – both immediately after it and 2 weeks later. The findings indicate greater frequency of positive opinions on the workshop and its contents with time – e.g. the percentage of those who considered it a positive experience changed from 40% to 63% and those who found the new skills applicable changed from 66% to 80%.

Discussion

The study reported in the paper was aimed at evaluation of the effects of an intervention programme designed for menopausal women. It was assumed that study participants would express less intense symptoms after the workshop in comparison with menopausal women who did not take part in the intervention. These assumptions were confirmed as women who participated in the intervention expressed less intense symptoms at the follow-up. Vasomotor and psychological symptoms were less intense and frequent. However, the decrease in intensity of reported somatic symptoms was recorded as well. No such changes were observed in the control group. As both groups were similar at base line in their symptoms frequency and other factors affecting symptoms intensity, the observed change might be attributed to the intervention programme.

The effect of the intervention concerns also the attitudes towards menopause. The participants expressed more positive attitudes after the workshop, thus they were conceptualizing menopause more often as a new phase in their lives and felt more in control over the course of the transition than before the workshop. Such perception of menopausal transition might decrease the stress associated with symptoms, thus affect the way symptoms are experienced, what finally might result in changes in reporting on symptoms' frequency and intensity. Through the change of perception and interpretation of symptoms the whole experience of transition might be modified towards more positive. Such interpretation of the results of the present study finds support in the findings of some previous investigations [2, 3, 11, 18, 19] that indicated the relationship between stress and anxiety and symptoms' severity.

It is worth adding that the knowledge on menopause, as indicated in the results of the follow-up evaluation questionnaire, increased in the study group. As previous studies indicated that such knowledge of menopausal women is relatively limited [20], thus the additional effect of our intervention programme can be considered.

Personality is considered to contribute to the experiences related to many health problems, including the menopausal transition [2, 21, 22]. In our study we have applied the concept of type D personality (stress prone personality) – the construct found to influence health

and illness (e.g. hypertension, addictions). The findings reported here indicate that type D features might affect – through the increased likelihood of development of negative emotions – the way menopausal transition is experienced, and result in reporting more intense and frequent symptoms. Such results add to the discussion on the role of personality and individual differences in health and in development of some illnesses. According to our findings, the role of type D features seems to be universal, as more severe symptoms were associated with increased Type D scores, irrespectively of participation in the intervention programme.

Psychological interventions become recognized as effective ways to modify attitudes towards reproductive problems, reactions and behaviours of persons affected by such problems. The scope of such interventions is wide, e.g. from premenstrual tension to menopause and infertility [5-9; 23]. The crucial issue in any psychological intervention programmes, despite their theoretical background, is the duration of the effects. The findings reported in literature indicate that the desired effects of interventions are observed up to several months afterwards. In our study the follow-up period was relatively short – two weeks only. Such length of the observation period is not sufficient for the full recognition of effectiveness of our intervention. Nevertheless, the results indicate the potential for change in women's attitudes towards menopause and symptoms reporting once additional information on menopausal transition is provided and the basic skills to control the symptoms are offered.

Conclusions

The way menopausal symptoms are experienced is related to personality – women with high DS-14 scores (indicating stress prone personality – type D) report more intense symptoms.

The intervention programme providing (updating) knowledge on menopause and skills to cope with symptoms is effective in helping women detect their symptoms, name them properly and cope with them. Thus, it might be helpful in decreasing the intensity of symptoms experienced by women.

Due to a relatively short follow-up interval, the positive effects of the workshop should be interpreted with caution.

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