



# Effects of counseling on lifestyle of menopause women and their spouses: a randomized, controlled trial study (RCT)

Azita Tiznobaik<sup>1,2</sup>, Safoura Taheri<sup>1,3</sup>, Zohreh Momenimovahed<sup>1,4</sup>, Anooshirvan Kazemnejad<sup>5</sup>, Seyedeh Tahereh Mirmolaei<sup>1</sup>

## ABSTRACT

**Background:** Menopause is a part of the normal aging process, but considerably affect the different aspects of women and their spouse lifestyle. Stabilizing a healthy lifestyle is important way to control predisposing factors of disease conditions in menopause women, thus counseling may have a major role for improving lifestyle in women and their spouse.

**Objective:** The present study aimed to assess the influence of counseling on lifestyle of menopause women and their spouses.

**Methods:** An interventional trials study was performed on 120 consecutive Iranian couples (menopause women and their spouses) who were resident in Hamadan. The subjects were randomly assigned to receive counseling service as intervention group or did not receive this service as control group. The lifestyle assessment was performed before counseling, and also after the first session (2 months later) and second session (2 months after the first session) of counseling. The control group did not receive any counseling. In total, five sessions were programmed for one hour as couple Counseling at home.

**Results:** The scores of nutritional habits and physical activity level at baseline were significantly similar between the two groups. However, both nutritional habit and physical activity scores were significantly increased after regular counseling in the intervention group, while these scores remained unchanged in the control group.

**Conclusion:** Counseling has beneficial effects on lifestyle modification in both menopause women and their spouses regarding improvement of nutritional habits and physical activity.

**Keywords:** counseling, nutritional habits, physical activity, menopause women, their spouses

## INTRODUCTION

Menopause is a part of the normal aging process, but considerably affect the different aspects of women and their spouse lifestyle (1); stabilizing a healthy lifestyle is important way to control predisposing factors of disease conditions in menopause women. Balance calorie intake and physical activity to achieve and maintain a healthy range of body weight, selection of healthy food programs, and avoiding alcohol use are the main advices and fundamentals of a healthy lifestyle in these women (2, 3). For those struggling with women's health and menopause symptoms such as mood swings, mild depression and anxiety or stress related to handling a busy life, counseling may be an effective option.

Mansfield et al. argued that the role of husbands in the reproductive life of spouses, such as pregnancy and postpartum, has been noted but few study has been done on the importance of the role of the family and especially the spouse during menopause (4). Mohammadalizadeh Charandabi et al. found a significant positive correlation in all

<sup>1</sup> Department of Midwifery and Reproductive Health, faculty of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran.

<sup>2</sup> Department of Midwifery, Faculty of Nursing and Midwifery, Member of mother & child care research center, Hamadan University of Medical Sciences and Health Services, Hamadan, Iran.

<sup>3</sup> Department of Midwifery, faculty of Nursing and Midwifery, Ilam University of Medical Sciences, Ilam, Iran.

<sup>4</sup> Department of Midwifery, faculty of Nursing and Midwifery, Qom University of Medical Sciences, Qom, Iran.

<sup>5</sup> Department of Biostatistics Epidemiology, Faculty of Medicine, Tarbiat Modares University, Tehran, Iran.

**Correspondence:** Dr. Seyedeh Tahereh Mirmolaei  
Department of Midwifery and Reproductive Health, School of Nursing and Midwifery, Tehran University of Medical Sciences, East Nosrat St., Tehran, Iran.

E-mail: [mirmolaei@tums.ac.ir](mailto:mirmolaei@tums.ac.ir)

Received: 5 Jan 2018, Accepted: 21 Feb 2018

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Electronic Journal of General Medicine

domains of quality of life between postmenopausal women and their spouses (5). Studies that have partnered with husbands to promote the health status of postmenopausal women, aiming at raising knowledge about menopause and its changes in quality of life (6) and perceived social support (7) and marital and sexual counseling (8,9). Few studies have been conducted on the effect of counseling on the life style of postmenopausal women; In previous studies on improving lifestyle postmenopausal women, studies did not pay attention to the importance of the dependence of the lifestyle of these women and their spouses, which we have been focusing on in this study, which can be a reflection of the novelty of this study. In an another look, menopausal symptoms also vary significantly between countries and amongst different ethnic and even in religious groups within the same countries and therefore educational and counseling programs for menopause women may have different effects on women lifestyle modification (1). Based on our search, we found no study to investigate the effect of counseling on lifestyle; Therefore, based on the importance of women in the family and society and the importance of menopausal age due to physiological and psychological changes and the transitional period from adulthood to aging and lifestyle effects in general health and quality of life, according to past studies and lack of adequate study on lifestyle, the present study aimed to assess the influence of counseling on lifestyle of menopause women and their spouses.

## **METHOD AND MATERIALS**

### **Sample Frame**

An interventional trials study was performed on 120 consecutive Iranian couples (menopause women and their spouses) who were resident in Hamadan.

### **Recruitment Methods**

The main inclusion criteria included age ranged 50 to 60 years for men and 45 to 55 years for women, and passing at least one and a maximum of 5 years from the time of menopause. Those women with the history of hysterectomy or experienced radiotherapy, using hormone replacement therapy, or had any psychological problems histories were excluded.

### **Data Collection**

Among the 250 postmenopausal couples qualified for the study, 120 couples were selected through random numbers table, then the subjects were randomly assigned to receive counseling service as intervention group or did not receive this service as control group. The purpose of the study was explained to all participant prior to enrollment and all participants signed written informed consent.

The lifestyle assessment was performed before counseling, and also after the first session (2 months later) and second session (2 months after the first session) of counseling. The control group did not receive any counseling. First session includes four sessions with 4 to 7 days' interval and second session included one session. Each session was programmed for one hour as couple counseling at home. The questionnaires were completed for women and their spouses separately.

### **Ethics Approval**

Ethics approval was obtained from the Institutional Review Board of Tehran University of Medical Sciences.

### **Questionnaire Development**

Baseline information was collected by a self-administered questionnaire. Also, lifestyle status was assessed using the White lifestyle assessment tool that was developed in 1993 consisted of various questionnaires regarding nutritional habit and level of physical activity. The scoring for nutritional component of this assessment tool was based on the two high-risk nutrition regimen (including fast foods) and low-risk regimen (including fruits and vegetables) as well as on the method of cooking and number of meals. The total score of the healthy nutrition regimen was 169. The score for physical activity was also assessed based on regular walking and regular exercise defined as at least three times a week for at least 30 minutes for each program and classified as low level (slow jumping or walking), intermediate level (aerobic exercises), and high level (wrestling, volleyball and basketball). For assessing reliability of the questionnaire, test-retest analysis was performed so that the questionnaire was collected by 20 eligible individuals and was also repeated 10 days later resulting a good correlation ( $r = 0.80$ ). Content validity was also assessed by a panel of ten content experts with professional expertise in health science, midwifery, and nursing.

**Table 1:** Scores of nutritional habits before and after counseling

| Subgroups          | Before counseling | After first counseling | After second counseling | p-value              |
|--------------------|-------------------|------------------------|-------------------------|----------------------|
| Intervention women | 80.83 ± 9.90      | 109.10 ± 10.41         | 129.01 ± 11.82          | P1=0.000<br>P2=0.000 |
| Control women      | 82.48 ± 10.43     | 82.50 ± 11.30          | 82.56 ± 11.54           | P1=0.93<br>P2=0.72   |
| Intervention men   | 83.86 ± 9.65      | 110.80 ± 10.59         | 130.08 ± 11.73          | P1=0.000<br>P2=0.000 |
| Control men        | 86.11 ± 15.88     | 86.17 ± 18.01          | 86.23 ± 18.16           | P1=0.72<br>P2=0.79   |

**Table 2:** Level of physical activity before and after counseling

| Subgroups          | Walking      | Before counseling | After first counseling | After second counseling | p-value              |
|--------------------|--------------|-------------------|------------------------|-------------------------|----------------------|
| Intervention women | None         | 51 (85.0)         | 16 (26.7)              | 7 (11.7)                | P1=0.000<br>P2=0.000 |
|                    | Low          | 2 (3.3)           | 8 (13.3)               | 11 (18.3)               |                      |
|                    | Intermediate | 5 (8.4)           | 26 (43.3)              | 31 (51.7)               |                      |
|                    | High         | 49 (81.7)         | 48 (80.0)              | 48 (80.0)               |                      |
| Control women      | None         | 49 (81.7)         | 48 (80.0)              | 48 (80.0)               | P1=NS<br>P2=NS       |
|                    | Low          | 3 (5.0)           | 4 (6.7)                | 4 (6.7)                 |                      |
|                    | Intermediate | 6 (10.0)          | 6 (10.0)               | 6 (10.0)                |                      |
|                    | High         | 2 (3.3)           | 2 (3.3)                | 2 (3.3)                 |                      |
| Intervention men   | None         | 55 (91.6)         | 22 (36.7)              | 11 (18.3)               | P1=0.000<br>P2=0.000 |
|                    | Low          | 1 (1.7)           | 6 (10.0)               | 10 (16.7)               |                      |
|                    | Intermediate | 3 (5.0)           | 25 (41.6)              | 30 (50.0)               |                      |
|                    | High         | 1 (1.7)           | 7 (11.7)               | 9 (15.0)                |                      |
| Control men        | None         | 52 (86.7)         | 53 (88.4)              | 53 (88.4)               | P1=NS<br>P2=NS       |
|                    | Low          | 4 (6.7)           | 3 (5.0)                | 3 (5.0)                 |                      |
|                    | Intermediate | 2 (3.3)           | 2 (3.3)                | 2 (3.3)                 |                      |
|                    | High         | 2 (3.3)           | 2 (3.3)                | 2 (3.3)                 |                      |

## DATA ANALYSIS

Results were reported as mean ± standard deviation (SD) for quantitative variables and percentages for categorical variables. The groups were compared using the t test or Mann-Whitney U test for continuous variables and the chi-square test or Fisher's exact test if required for categorical variables. The paired t test was used to assess changes in lifestyle scores after counseling. P values of 0.05 or less were considered statistically significant. All the statistical analyses were performed using SPSS version 19.0 (SPSS Inc., Chicago, IL, USA) for Windows.

## RESULTS

Baseline characteristics including age, educational level, monthly income, number of children, body mass index, age of menopause, and knowledge toward menopause and its-related caring were comparable in the two intervention and control groups. Also, the scores of nutritional habits and physical activity level at baseline were significantly similar between the two groups. However, both nutritional habit and physical activity scores were significantly increased after regular counseling in the intervention group, while these scores remained unchanged in the control group. Scores of nutritional habits before and after counseling in the two study groups shows in **Table 1**. It is shown in the **Table 2**, Rate of weekly regular walking before and after counseling in the two study groups. Level of physical activity before and after counseling in the two study groups.

## DISCUSSION

The present study aimed to assess the influence of counseling on lifestyle of menopause women and their spouses. Result of study showed that both in first and second counseling stage enhanced nutritional habits and physical activity in both menopause women and their spouse. About of nutritional habits, Jafari and colleagues also showed significant improvement in nutrition habit following counseling session (10). O'Halloran and colleagues (11) showed that counseling by physicians could lead to improve nutritional habit to use higher fibers and reducing consumption of fats compared with controls. In fact, consuming unhealthy nutrients may be associated with lack of enough knowledge toward healthy nutrition in menopause period that by counselling it increases. However, some studies could not demonstrate beneficial

effects of counseling on improving nutrition regimens probably due to short counseling time or mismatch between the person and the family regimens emphasize counseling with menopause women and their family members; which requires further research in this field.

Regarding physical activities, counseling resulted in improvement of these activities in the intervention group. Similarly, Steptoe and colleagues (12) demonstrated that counseling by nursing groups led to regular exercise in inactive menopause women, Nisbeth and colleagues (13) also observed similar results. Polycornoplus et al. (2005) in their study on a group of older men and women Cypriots to assess lifestyle factors, found that 32 percent of this group had physical activity (14), the present study also found that 33.3% of women had physical activity before the consultation that has been almost consistent with. Hirvensalo and colleagues (15) also indicated that counseling sessions can increase tendency to regular physical activities in both men (6 to 10 times) and women (2 to 4 times). Similarly, in our survey, physical activity was increased in men (7.6 times after first session and 9.8 times after second session) and in women (6.3 times after first session and 7.5 times after second session). Thus, it seems that lifestyle modification following counseling may be appeared more in men than in women. It would be considered for two reasons: firstly, at the same time counseling women and their partners in research. Second, arrange counseling sessions for their more frequency. In line with study of Kerse et al. (2005), in our study physical activity in men and women in the intervention group increased than the control group although there were shorter consultations than ours (16). The limitation of the present study is the lack of studies on the lifestyle of middle-aged women and spouses that it led the researchers cannot talk about similar and different of their findings in the part of discussion. The strength of this study is to hold several training sessions and opportunity to answer questions during each session and have 16 weeks' follow-up period. Men's participation in couples counseling is also important point because other studies have only given women, and we know that men have an important and undeniable role in lives women. According to the results of this study counseling can use with involvement of couple for changing, modifying and maintaining of healthy lifestyle; physical activities and proper patterns of nutrition. Considering that husbands are the closest and most influential person in women's lives, it is recommended that, several years before menopause, couples have counseling and educational programs to raise awareness about the factors affecting menopausal changes, especially the importance of healthy lifestyles.

In conclusion, counseling has beneficial effects on lifestyle modification in both menopause women and their spouses regarding improvement of nutritional habits and physical activity.

## ACKNOWLEDGEMENTS

This study was supported by Tehran University of Medical Sciences. Authors would like to thank all couples who helped us to conduct this study with their participation and cooperation.

## CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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