



# Health Promoting Behaviors and Their Relationship With General Health in Menopausal Women of Langroud City

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## Abstract

**Objectives:** Health promoting behaviors and healthy lifestyle are the main ways to maintain health. Wrong lifestyle in menopausal women is the reason of many serious side-effects of this period. On the other hand, health is undoubtedly the most important aspect of human life; therefore, this study was conducted to determine the state of health promoting behaviors and their relationship with general health in menopausal women in Langroud city, Gilan province in 2013.

**Materials and Methods:** In this cross-sectional study, 400 menopausal women at the age range of 45-60 living in Langroud were randomly selected. The data were collected using demographic questionnaire, Health Promoting Lifestyle Profile (HPLP-II) and General Health Questionnaire (GHQ-28) by referring to the houses. Statistical tests of Pearson, t test, one-way analysis of variance (ANOVA) and multivariate linear regression were used to analyze data.

**Results:** Mean (standard deviation) of health promoting behaviors' total score was 2.6 (0.3). The highest score of lifestyle was related to spiritual growth, 3.6 (0.4), and the lowest score was related to physical activity, 1.6 (0.3). Mean (standard deviation) of the total score of general health was 21.3 (6.9) and 26.7% of women were not in good health. There was a significant statistical relationship between health promoting behaviors and general health.

**Conclusion:** The results showed that health promoting behaviors in menopausal women were average; therefore, some solutions should be designed and performed for health promoting behaviors and general health in menopausal women in order to reach to favorable state.

**Keywords:** Behavior, Health, Menopause, Women

## Introduction

One of the health determining criteria is health promoting behaviors recognized as the basic factor in preventing from diseases and health promotion and this prevention is directly related to these behaviors (1). According to the World Health Organization (WHO), 70%-80% of mortalities in developed countries and 50%-60% of mortalities in developing countries are related to lifestyle factors (2). Most of the health problems such as overweight, cancer, smoking, addiction and cardiovascular diseases are related to lifestyle varieties (3). Health promoting behaviors, by emphasizing on healthy lifestyle, promote health and life quality and decrease treatment expenses (4). The most important emphasis of health promotion is preventing from diseases and promoting and developing the skills and capabilities of individuals' self-care (5).

Health promoting behaviors are defined as continuous activities carried out based on active approach in order to maintain and promote personal welfare and self-actualization. In this respect, it is important to recognize personal factors and features of individuals that have role in continuing health promoting behaviors and also in structured interventions for promotions and maintaining these behaviors (6). Health promoting behaviors are multidimensional patterns divided into 6 dimensions of nutrition, physical activity, spiritual growth, health responsibility,

stress management and interpersonal relations by Pender et al in 1996 (7). Focusing on healthy lifestyle in all stages of life is an undeniable necessity for having a dynamic and healthy life from embryonic period to old age. Menopause is one of the periods important to be focused to health promoting behaviors.

Ghuorbani et al studied health promoting behaviors and their relationship with hot flashes in menopausal women in Mashhad and showed that there was a relationship between health promoting behaviors and hot flashes (8). In their study in Fenland, Moilanen et al showed that athlete and non-alcoholic middle-aged women experience less side-effects of menopause in comparison with non-athlete and alcoholic women (9).

On the other hand, health is undoubtedly the most important aspect of human life and is the matter that human has attempted to reach from prehistoric era up to now. Health is the necessity for social roles and when an individual feels healthy and is felt healthy by the society, he/she can have a perfect role (10). It is one of the primary rights of human and necessary for the development of societies (11). General health is defined as physical, psychological and social reactions to internal and external stimuli (12). In 1979, Goldberg divided general health into 4 fields of physical health, anxiety, social function and depression. Nowadays, health systems set its important programs on



family health and women are considered as the center of family health and women's health is one of the indices of society development; therefore, it is important to recognize women's needs, psychological and emotional features and their abilities in social and economic dimensions (13).

There are evidences representative of unfavorable states of women's health in the world while the main part of society's responsibilities such as health, health education and help in critical situations are carried out by women (14). The study by Shahrokhi about working women's general health in Ghazvin showed that women have general health disorder (15). In the study by Solhi et al in Chalous, 27% of women had unfavorable general health (16). A study in Turkey by Karaçam and Şeker on menopausal women showed that problems of menopause affect women's health and life quality (17). This study evaluated health promoting behaviors and their relationship with general health in menopausal women.

### Materials and Methods

This is a cross-sectional, descriptive and analytical study carried out on menopausal women of Langroud city in 2013. The samples were chosen by random cluster sampling. Considering 5% error, accuracy of 0.05 and standard deviation of 0.36 of the total score of health promoting behaviors in the study by Enjezab et al (18), the sample size was calculated about 199 cases and regarding the design effect of 2, the sample size was estimated 400 subjects for the study.

After getting the approval of the Ethics Committee of Research Deputy in Tabriz University of Medical Sciences (TUOMS), the researcher was introduced to Gilan University of Medical Sciences. After a complete explanation of the proposal, Research Deputy of Gilan University approved the study to be carried out. The researcher was introduced to health center of Langroud city for sampling. According to population information of statistical center of the health center, the number of middle-aged women was 8000 in Langroud. The researcher needed the address of 80 middle-aged women at the age range of 45 to 60 as head clusters. The statistical center of the health center let the researcher have access to the address so 80 women were randomly chosen as the head clusters. Sampling was carried out by random cluster sampling. At first, the researcher referred to the address of the women in menopause (the head clusters) and after explaining the proposal and its advantages, results and confidentiality of the information, written informed consent was taken and the questionnaire was filled through interview. Then, by moving to the left side, the questionnaire was filled for 5 subjects in each 80 clusters so it was filled for 400 subjects.

### Study Tools

In this study, data were collected using demographic questionnaire, Health Promoting Lifestyle Profile-II (HPLP-II) and General Health Questionnaire (GHQ=28). Demographic questionnaire included questions about age, menopause age, body mass index (BMI), education level,

marital status, and number of children, number of family members, sadat status, working status, economic status, life satisfaction and having chronic diseases.

### Data Analysis

Data were analyzed by SPSS version 13. Descriptive statistics such as absolute and relative frequency distributions and also central indices and distributions like mean and standard deviation (SD) were used for describing demographic features and health promoting behaviors status. For analyzing the relationship between health promoting behaviors and general health, at first bivariate tests like *t* test, Pearson, and one-way analysis of variance (ANOVA) were used and then for controlling the confounding variables and estimating the effect of every independent variable (health promoting lifestyle) on dependent variable (general health) and variance explanation, the independent variables with *P* value less than 0.2 in bivariate test entered into multivariate linear regression model with Backward strategy. *P* less than 0.05 was considered significant.

### Results

#### Demographic Features

Table 1 shows the demographic features of women who participated in the study. Means (SDs) of age and menopause age were 53 years (3.5) and 48.4 years (2.2), respectively. Almost one-fourth of women were overweight with BMI more than 30 and more than half of women suffered from at least one chronic disease. The education level of almost half of women was elementary school. More than 90% of women were married and more than half of them had 3 to 4 children. 74.7% of women were housewives. The samples were almost in equal states considering social and economic states. More than three-fourths of subjects (75.3%) were in appropriate economic state and more than half of the subjects (53%) were satisfied with their lives. More than half of the participants were satisfied with their life.

#### Health Promoting Behaviors

Table 2 shows the mean (SD) of the total score of health promoting behaviors and the subdomains. Mean (SD) of lifestyle in menopausal women was 2.6 (0.3) and the highest score of behavioral dimension of lifestyle was related to spiritual growth, 3.6 (0.4), and the lowest score was related to physical activity, 1.6 (0.3).

#### The Relationship Between Lifestyle and General Health

According to Pearson correlation coefficient, there was a reverse significant relationship between health promoting behaviors and the subdomains and the total score of general health ( $P < 0.05$ ) (Table 3).

### Discussion

This study was carried out by the purpose of determining health promoting behaviors in menopausal women of Langroud city. The research showed that menopausal women had average lifestyle. The results of this study cor-

**Table 1.** Demographic Characteristics of 45-60 Years Old Menopausal Women ( n= 400)

Variables	Number (%)
<b>Age (y)</b>	
≤50	101 (25.3)
50-55	184 (46)
>55	115 (28.7)
Mean (SD)	53.3 (3.5)
Range of changes	47-60
<b>Menopausal age (y)</b>	
45-50	330 (82.5)
≥50	70 (17.5)
Mean (SD)	48.4 (2.2)
Range of changes	45-55
<b>Body Mass Index (kg/m<sup>2</sup>)</b>	
<18.5	2 (0.5)
18.5-24.99	75 (18.8)
25-25.99	224 (56)
≥30	99 (24.7)
Mean (SD)	28.0 (3.6)
<b>Education level</b>	
Elementary school	170 (42.5)
Guidance school	37 (9.3)
High school	74 (8.5)
Diploma and university	119 (29.7)
<b>Marital status</b>	
Married	363 (90.8)
Divorced and widowed	37 (9.2)
<b>Number of children</b>	
≤2	131 (32.8)
3-4	219 (54.7)
>5	50 (12.5)
<b>Number of family members</b>	
1-3	319 (79.7)
>3	81 (20.3)
<b>Sadat status</b>	
Sadat	46 (11.5)
Non-Sadat	354 (88.5)
<b>Working Status</b>	
Housewife	339 (84.7)
Working out	61 (15.3)
<b>Economic Status</b>	
Less than adequate	99 (24.7)
Adequate	301 (75.3)
<b>Life satisfaction</b>	
Unsatisfied	27 (6.7)
Satisfied	212 (53)
No idea	161 (40.3)
<b>Having chronic diseases</b>	
Yes	233 (58.2)
No	167 (41.8)

As the number of individuals with university degree was 12, single cases=2, divorced= 2, and subjects with more adequate income=1, so they were merged with the previous group.

responded with the results of the studies by Tehrani et al (19) and Enjezab et al (18) in Iran and Wattanasart (20) in Taiwan, and Duffy et al (21) in the United States. The samples of this study were in better status in comparison with Korean middle-aged women (22) and Turkish working women (23).

**Table 2.** Mean (SD) of the Total Score of Health Promoting Behaviors and the Sub-domains in Menopausal Women

Variable	Mean (SD)	Perceived Practical Domain
Health promoting behaviors	2.6 (0.3)	1.4-3.6
Nutrition	2.6 (0.4)	1/0-3.8
Physical activity	1.6 (0.3)	1.0-3.2
Spiritual growth	3.6 (0.4)	1.5-4/0
Health responsibility	2.2 (0.4)	1.1-3.8
Stress management	2.6 (0.5)	1.0-4.0
Interpersonal relations	3.1 (0.4)	1.4-4/0

**Table 3.** The Relationship Between Health Promoting Behaviors and the Sub-domains and General Health

Variable	r	P
Health promoting behaviors	-0.23	<0.001
Nutrition	-0.23	<0.001
Physical activity	-0.18	<0.001
Spiritual growth	-0.35	<0.001
Health responsibility	-0.10	<0.001
Stress management	-0.23	<0.001
Interpersonal relations	-0.23	<0.001

In this study, the highest mean score of participants was related to spiritual growth. This result corresponded with the results of the studies by Enjezab et al on middle-aged women and Tol et al on university students (24). The score of women’s spiritual growth in this study was more than the scores of the studies by Lee and Wang (25) in Taiwan and Duffy et al (21) in the United States. It seems that it is because of the role of religion in society of Islamic Iran. Spiritual growth is one of the important aspects of life and determines human’s goals in life and increases the capabilities to promote health and life satisfaction (26). It also leads to a constant relationship between human’s internal factors and is recognized by features like constancy in life, peace and feeling of good relationship with God and society and also individual’s good relationship with her/himself (27). During last decades, the WHO has focused on religious teachings and their effects on lifestyle of different societies especially Islamic countries and has asked health supervisors to carry out short-term and long-term programs to perform it (28).

The women in this study achieved the least score considering physical activity. This result corresponded with the results of the studies by Enjezab et al (18) and Tehrani et al (19) on middle-aged women and Mazloomi et al on professors of Yazd University of Medical Sciences (29). However, the results of the studies by Duffy et al (21) and Pender et al (30) in the Unites States, showed that participants were in better level of physical activity. The level of physical activity in this study was less than the level of physical activity on working women in Turkey and less than the results of the study by Lusk et al (31). It is necessary for middle-aged women to have physical activity because inactivity and inappropriate physical activity are the causes of cardiovascular diseases, diabetes and osteoporosis (32). The results of the study by Lopez-Alegria and

De Lorenzi (33) showed that physical activity has positive effects on menopausal symptoms.

In this study, 24.7% of women were overweight (BMI  $\geq 30$ ) as the result of inactivity and this reason paves the way for chronic diseases. In our society, the reason of inactivity may be lack of positive beliefs and attitudes toward physical activity. The experts believe that the individuals will carry out an action in the case of having positive attitude toward it (34). In this study, based on the results of data analysis, there was a reverse significant relationship between health promoting behaviors and the sub-domains and general health. The results is in line with the results of the study conducted by Samimi et al (35). It means that the participants of this study had disorders in general health because of inattention to health promoting behaviors and their dimensions. In the study by Ayranci et al (36) in 2005, it was showed that there was a significant relationship between general health and nutrition. In another study, Ezoë and Morimoto (37) showed a significant statistical relationship between general health and stress management. According to Stock et al (38) individuals with physical activity and social support had less health complaints. Misra and McKean (39) showed that there was a significant relationship between individual's health responsibility and general health.

Therefore, Ministry of Health and Medical Education should care about the middle-aged women like monitoring the pregnant women and under 6 children. They should set and perform education interventions of correct principles of life style. Because of the increase of life expectancy and disabilities in women, giving priority to the health of these people is very important in order to have a dynamic and healthy society.

### Suggestion

Nowadays, the focus is on prevention and providing health by health promoting behaviors and also on omitting the factors with negative effects on general health level and most of the health problems such as overweight, cardiovascular diseases, different types of cancers, addiction, and psychological problems in all countries especially in developing countries, are in relation with individual's lifestyle change (40). The results of the present study show that individual's general health (physical-psychological) depends on health promoting behaviors; therefore, health promoting behaviors have most effect on providing general health.

### Ethical Issues

Approval was obtained from the Ethics Committee of Research Deputy in Tabriz University of Medical Sciences (No. 91220).

### Conflict of Interests

The authors declare no conflict of interests.

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