

## RESEARCH COMMUNICATION

# Healthy Life-Style Promoting Behaviour in Turkish Women Aged 18-64

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### Abstract

**Aim:** In this study we aimed to investigate the healthy life-style behaviour of Turkish women and establish influencing features. **Methods:** This descriptive study performed by a questionnaire method was conducted in a primary health care centre, in an urban region in Kayseri, Turkey. Every midwife region belonging to the health care centre was accepted as a cluster, and a sample of 450 women between ages 18-64, was gathered from 9 midwife regions. The Health Promotion Life-style Profile (HPLP) was applied to evaluate the healthy life-style behaviour of 421 women that could be reached. T test, Tukey HSD with ANOVA, and chi square tests were used for analysis. **Results:** The mean total HPLP was 126.8±19.2 (interpersonal support subscale, 74.3±14.1; nutrition subscale, 73.6±12.6; self-actualisation subscale, 70.6±11.9; stress management subscale, 63.4±13.0; health responsibility subscale, 61.2±13.2; and exercise subscale, 47.1±15.0). There was no statistically significant variation when evaluated for age, marital state, family type, economic status, and perception of self-health, smoking, and BMI. HPLP was high in people with an education of primary school and lower in university graduates, in people who lived mostly in the city centre and in individuals with chronic diseases. In conclusion, it was established that the health promoting behaviour in Turkish women is, in general, at a medium level, and women should be enlightened in order to develop and increase the habit of health preservation and promotion.

**Keywords:** Women - promotion of health - HPLP scores - Turkey

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### Introduction

The most prominent aspect of the goals and strategies of WHO in "Health for All" in 2000, was the emphasis on "health promotion" (Kickbusch, 2003). As part of the project of Health for All, in the "I. International Health Promotion" conference, conducted in 1986, Ottawa, Canada, health promotion was defined as: "a process in which people get to promote their own health and attain a better control over their own health".

All the efforts for protection from diseases and accomplishing a healthy life can be considered as a "Healthy Life-style". Health promotion and the protection from diseases comprises several attitudes such as; healthy nutrition, (Wahlqvist and Saviage, 2000) regular physical exercises (Godfrey and Nelson, 2009), avoiding cigarettes and alcohol, avoiding stress and exhaustion, 7-8 hours daily sleep and bringing the environment to a healthier state (Wahlqvist and Saviage, 2000). According to Pender, the healthy life-style behaviours are; self-actualization, health responsibility, exercise, nutrition, interpersonal support and stress management (Pender et al., 1992).

Health responsibility means the attitude and behavioural adaptations the individuals show for the protection and promotion of their health. Health responsibility affects the

health care quality of the individual and determines the level of contribution the individual demonstrates for his/her health. The responsibility level the individuals show regarding their health is determined by; being aware of their body and themselves, referring to a doctor or health centre whenever there is a change or abnormality in their health condition, performing medical workups regularly, showing due care to their medical controls, renewing themselves regarding health issues, discussing about health, following literature about health, following their own health and feeling themselves well and taking the necessary precautions whenever there is a change in their health condition (Bottorff et al., 1996).

Although many studies have been published regarding health promoting behaviours in certain groups, such as health personnel (Beser et al., 2007) and university students (Can et al., 2008), published studies investigating healthy life-style behaviours in women (Altay, 2006) have been limited. Today's health perception comprises the attainment of behaviours promoting and protecting the health of the individual, family and society in general and accepting the reality of the importance of a healthy life-style promotion in all individuals and in women in special (Al Ma'aitah et al., 1999).

Promoting healthy life-style behaviour in women, who

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are the keystones of a society, enables the achievement of healthy generations. Primarily women are responsible for their own health and can actualize this process.

The present study was conducted in the urban area in Kayseri, Turkey, with women between 18-64 years of age, to determine the prevalence of their positive life-style behaviours regarding health and the possible factors that might be related to these behaviours.

## Materials and Methods

### Study Sample

This descriptive study was conducted in 2008 in Turkey, in the province of Kayseri, among women between 18 and 64 years of age. Kayseri is one of the biggest cities in Turkey, with a total population of one million, located in the middle of the Anatolian region, and is an important commercial and industrial centre. The study centred in a primary health care centre selected from this urban region. The general population of the study region in 2008 was 33,419, and the population of women between ages 18 and 64 years, was 11,901. The majority of the population in the region were of high socio-economic status. Assuming that 50% of the sample group would have a healthy life-style behaviour, and according to alpha value 0.05, power 0.80 and  $d=0.06$  conditions, it was established that 323 people had to be included into the study. Participants that were included in the study were those women aged 18-64 years in each household identified. The study was drawn using two-stage stratified random and clustering sampling method; in first-stage, 9 different midwife regions from the 18 primary health centres were selected by random sampling. In the second stage, 450 women were included into the study by selection of 50 dwellings from 9 different midwife regions by clustering sampling.

### Data Collection

The data were gathered by house visits, administering a face-to-face questionnaire to women between 18 and 64 years of age, who were willing to participate in the study. Oral consent was obtained from each woman who recruited in the study group. Every participant was assured to withdraw the interview at any phase if they wish to do so. None of the women denied participating, and for women that could not be found at home, with any chances of being reached, individuals from the same group, from different buildings, were included into the study. Out of 450 women, the questionnaires of only 421 were evaluated due to the incomplete and conflicting data found in some of the questionnaires.

In gathering the data, a structured questionnaire was used to inquire about socio-demographic characteristics, such as; age, marital state, family status, the place they mostly lived in and also to inquire about their economic status, health perception, chronic diseases, smoking status and body mass index according to their own assessments in the first part. The limitation of this study is not used any standard instruments for collection data on demographics, health perceptions, medical history etc. in our study. Self-reported chronic illness: The question was asked, "Are you diagnosed any chronic illness?" The

answering options were "yes" or "no". Health perception: "How is your health in general?" and the options were "good", "moderate" and "bad". The second part of the questionnaire, the Health Promotion Life-style Profile (HPLP) scale was completed as well. This scale was developed by Walker, Sechrist and Pender in 1987 (Walker et al., 1987), and the Turkish version was developed by Esin in 1999, establishing the validity and credibility of the scale. Cronbach's Alpha internal consistency coefficient was 0.91 (Esin, 1999).

The scale comprises six subgroups with a total of 48 items. The subgroups are: self-actualization, health responsibility, exercise, nutrition, and interpersonal support and stress management. Every subgroup can be used independently. The total score of the scale gives the score of a healthy life-style. All the items of the HPLP scale are affirmative; there are no reverse questions. The answers are given within a foursome likert type scale. The answer "never" gets 1 point, "sometimes" 2 points, "frequently" 3, and "regularly" 4. The number of items in the subgroups and the lowest and highest scores attainable are given below. Every subgroup consists of different items.

Self-actualization (min-max:13-52); comprises 13 items; it establishes the individuals' life goals, their ability for self-actualization and their degree of accomplishing self-recognition and self-gratification. Health responsibility (min-max:10-40); comprises 10 items; it establishes the level of responsibility the individuals take over their own health and their participation degree. Exercise (min-max:5-20); comprises 5 items; it shows the amount of exercise the individuals perform. Nutrition (min-max:6-24); comprises 6 items; it establishes the capacity to select, and organize the appropriate meal intervals and the appropriate kind of food. Interpersonal support (min-max:7-28); comprises 7 items, it establishes the individuals' communication and its continuity within their near environment. Stress management or dealing with stress (min-max:7-28); comprises 7 items; it establishes the ability of the individuals in acknowledging the sources of stress and the control mechanisms. In total, HPLP scale (min-max: 48-192), comprises 48 items.

### Analysis

T test, Tukey HSD test with ANOVA, and a multiple linear regression model were used for statistical analysis. A multiple linear regression model was developed to examine the associations between patient characteristics and HPLP score. Adjusted regression coefficients were calculated. Firstly we included all of the independent variables in Table 1 and Table 2. Then we excluded the entire no significantly variables except for age from model. In the final model age, educational level, the place mostly lived in, economic status, smoking status, and having any chronic diseases were included as confounders in multivariate analysis. The independent variables included in the models: Age (numerical), having any chronic diseases (no=0/yes=1), educational level (primary school and below=1, high school =2, university and above =3), the place mostly lived in (village-town=1, city-metropolitan area=2, economic status (good=1, average=2, low=3,

**Table 1. Socio-demographic Characteristics of the Research Group**

Variables (n=421)		Number	%
Age group	18-29	136	32.3
	30-44	174	41.3
	45-64	111	26.4
Educational level	<Primary school	157	37.3
	High school	131	31.1
	>University	133	31.6
Occupation	Housewife	240	57.0
	Student	43	10.2
	Employed	138	32.8
Marital status	Married	313	74.3
	Single	80	19.0
	Widowed	28	6.7
Having a child	Yes	317	76.5
	No	104	23.5
Primary residence	Village-Town	53	12.6
	City-Metropol	368	87.4
Economic status (self-evaluation)	Good	199	47.3
	Average	208	49.4
	Low	14	3.3
Family status	Nuclear family	351	83.4
	Large family	58	13.8
	One parent family	12	2.8

smoking status (smoker=1, non-smoker/quiting=0).

Erciyes University Ethical Committee approval was taken for the study.

## Results

30.2% of the women in the study group were between ages 25-34 and 62.7% had an education of secondary school and above. 57.1% of the women were housewives, 74.3% were married and 76.5% had children. 85.3% of the women lived most of the time in the city centre. Of the group, 61.8% of the women assessed their general health as good, 22.1% stated that they had some kind of chronic disease. 24.2% of the women stated that they received health information through health personnel and 67% stated that they did not smoke.

The total mean score of HPLP scale, calculated over 100 was  $66.0 \pm 10.0$  and when calculated in general was  $126.81 \pm 19.2$ . When evaluating the HPLP scale and the subscales in women, the order of the means from the highly marked items to the least marked was as such; interpersonal subscale  $74.3 \pm 14.1$ , nutrition subscale  $73.6 \pm 12.6$ , self-actualization subscale  $70.6 \pm 11.9$ , stress management subscale  $63.4 \pm 13.0$ , health responsibility subscale  $61.2 \pm 13.2$ , exercise subscale  $47.1 \pm 15.0$ .

There was no statistically significant difference in HPLP scale scores, regarding marital status, family status, health state assessed by their own perception, and Body Mass Index (BMI). In this study, while a significant difference between educational level, the place mostly lived, having any chronic diseases and HPLP scores, there was no difference between age groups, marital status, economic status, family status, health perception, smoking and BMI.

In multiple linear regression model, the HPLP scale scores of the women in the study group was found to be

time. Women have to be enlightened so that they gain the habit of exercising and they should be canalised to exercise programs taking into account their own preferences.

Inadequate and unbalanced nutritional habit is the main reason for many a chronic disease and even death (Wood et al., 1998). Helping women in gaining healthy nutritional habits is a very important step in improving society's health. In our study the nutrition score was 73.6 over a hundred, and ranked second.

Self-actualization, the first step in the Pyramid of Needs, proposed by Maslow, is related to the individuals' health. The individuals that have actualised themselves are usually aware of themselves, live their life within certain goals and purposes, behave in a creative, efficient and decisive way, and use their full capacity (Ventegodt et al., 2003). The self-actualization score of the women in the study group was 70.6 over a hundred and ranked third.

Due to the fast changes in social, economic and communal areas, stress has possessed everyday life more and more, and affects the physical and mental well being of individuals (Oztürk, 2008). The stress management score of the women in the study group was 63.4 over a hundred. Our results both in self-actualization and stress management are parallel to other studies from our country (Altiparmak and Kutlu, 2009) and the world in general (Ahijevych and Bernhard, 1994). A woman's domestic life can put into risk her mental health; it can cause emotions such as pessimism and unworthiness. Therefore, the factors creating stress should be determined and effective stress management should be thought. Health responsibility, which affects the individual's resumption and maintenance of health promoting behaviours, reflects a person's responsibility upon his/her health. The health responsibility score of the women in our study group was 61.2 over a hundred. This score is substantially low and is parallel to the results of other studies performed in our country. This low result may be the reflection of the fact that the Turkish society sees the mother responsible for the health of the family and thus the women places her health after her family's. In order to establish and raise this substantially low health responsibility in women, there is an obvious need for continuous education.

The perception of health and the subsequent behaviours are affected by the individual's age, education, economical status, and social and cultural characteristics. In our study there was no significant difference in HPLP scores in women, when compared by age, marital status, family status, health perception and BMI. In a study Walker and friends have found that health responsibility is higher in the elderly compared to the young and middle aged (Walker et al., 1987).

Educated people take more responsibility for their own health and it is a fact that women with higher education internalise and apply more the healthy life-style promoting behaviours. It is stated both in a study from our country (Yalcinkaya et al., 2007) and throughout the world (Ahijevych and Bernhard, 1994), that educational status affects the HPLP. In our study, as well, a significant increase in HPLP scores of the individuals with a higher education.

In this study, it is seen that HPLP scores of women



higher in those with university education, compared to those with an education of primary school and below; in those who lived most of the time in the city centre, in women having good economic status, in women with chronic diseases and non-smokers.

## Discussion

Women are the caregivers of the family, and they are a keystone of utmost importance in promoting and maintaining family health in all cultures (Al Ma'aitah et al., 1999; Bilgili and Ayaz, 2009; Moos and Bennett, 2011) and thus it is important that women be physically, mentally and socially in good health. Furthermore, fertility is a threatening factor in a woman's health. The fact that 74.3% of the 421 women in our study group were married and 76.5% had children may place them into the risky group.

High mean HPLP scores, mean that the individual has a high health promoting attitude and capacity for attaining more (Walker et al., 1987). In our study the HPLP scores of the women were at a medium level (66.0 over a hundred). Similar results, medium levels, were obtained in a study performed upon women in our country (Altıparmak and Kutlu, 2009; Bilgili and Ayaz, 200). The similarities in the study results show that, our results are an example of the country in general. This means that health promoting life-style behaviour can reach up to this level of awareness depending on the cultural and economical status. In studies performed in the USA with working women (Duffy et al., 1996), in Taiwan with pregnant women (Lin et al., 2009), in Japan workers (Zhang et al., 2011), in Japanese university students (Wei et al., 2012) and in Jordan with the Arabian Muslims (Al Ma'aitah et al., 1999), similar results were found.

In our study, the highest mean score was observed in the interpersonal support subgroup scale; and the lowest mean score in the exercise subgroup scale (Table 2). In different studies performed in our country upon women (Altay, 2006), university students (Karadeniz et al., 2008), university tutors (Kaya et al., 2008) and health care workers (Yalcinkaya et al., 2007) the same order was found. In two studies performed in USA upon African and Mexican women, and in a study from Jordan performed upon Arabian Muslim women, differing from our study, the highest mean score was found in self-actualization, whereas the lowest mean score, similar to ours, was found in exercise.

The interpersonal support subgroup of the HPLP scale ranked first with 74.3 over a hundred. This was also true in similar studies from our country and this fact about a high interpersonal support dimension can be explained by the high solidarity and cooperation seen between close friends and family relationships in our country.

The positive effect of regular exercise upon health is undeniable (Godfrey and Nelson, 2009). The exercise score of the women was 47.1 over a hundred and ranked last. These results from our study and others from our country can be explained by the fact that as a society we lack the habit of exercising and women in general do not perceive exercise as part of a healthy life-style due to cultural or personal reasons and do not, or can not spare the

living most of the time in the city centre was higher (119.4±127.9) (Table 3, Table 5). Being in big cities can be related to having a more up to date care and service regarding education, health, transportation, communication, etc. with a positive effect upon health.

It is assumed that "feeling well" can be a motivational source in increasing health status, that individuals who perceive themselves as healthy will display more of an effort to promote and maintain their health. On the contrary in our study there was no significant difference in HPLP scores regarding health perception. In a study performed in our country it was found that the HPLP scores of the individuals with a good health perception was higher (Beser et al., 2007).

In our study, it is seen that the women who stated to have a chronic disease had higher healthy life-style promoting behaviour scores (Table 4, Table 5). Similarly, in a study performed in 1994 upon 187 African-American women, individuals with a diagnosis of a medical disease had higher healthy life-style promoting total scores (Ahijevych and Bernhard, 1994). This high score can be explained by a better and more attentive compliance, seen in women with chronic diseases, to the doctors' suggestions and advices.

In conclusion, in this study performed with the aim of establishing the healthy life-style promoting behaviours in women and the factors affecting them, it was found that the health promoting behaviours in women was in general, at a medium level, and the healthy life-style behaviours mostly applied or cared about were interpersonal support and nutrition, and the least were exercise and health responsibility. The HPLP scores were higher in individuals with a higher education and economic status, in those living most of the time in the city, in those with chronic diseases and in non-smokers.

It is highly recommended that, women should be informed and educated about health promoting behaviours and should be encouraged to bring them into life.

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