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Evaluation of Health Promoting Life-Style Profile with the Body Composition of Physical Education Teachers and Other Branch Teachers

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ABSTRACT

Background: Healthy life-style comprise some physical fitness parameters related with health. In other words, physical fitness is the important determinant for various health responsibilities, nutrition and metabolic events. So if we suffer from any health problems, it is a result of inactive life style. In spite of the well-known benefits of physical activities and exercise, few individuals do not participate in regular physical activities and exercise. **Objective:** This research aimed at analyzing the body composition and Healthy Lifestyle Profile Behaviors (HPLP-II) between physical education teachers who perform physical activities frequently as an occupation and other branch teachers who do not embrace any such activities. **Results:** 353 Physical Education and 439 different branch teachers were sampled for this research. Body compositions were obtained through bioelectricity impedance methodology and healthy life styles were measured with 'HPLP-II scale'. The significance levels were taken as $p < 0.05$. A significant difference ($p < 0.05$) was observed between waist circumference and Waist-to-Hip Ratio. In one hand, it was observed that there is only one difference between HPLP-II scale nutrition habit percentage points whereas on the other hand, a meaningful difference was observed in favor of Physical Education teachers between health responsibilities, exercise, realization of oneself, support between people, management of stress and total scores of scale. It was confirmed that 64.3% male teachers and 79.4% female teachers have normal weight interval in conformity with their body types. It was observed that male physical education teachers are overweight in comparison with other teachers. However, there was no important difference in terms of body composition between Physical Education teachers and other teachers. Female teachers, generally, in comparison with male teachers, face challenges such as child birth kilos, malnutrition habituations, body composition changes in relation with sedentary life style and obesity problems. From this study, it can be inferred that the teachers' obesity level increases for both PET and OBTs. **Conclusion:** It has been observed that female teachers, generally, in comparison with male teachers, face obesity problems. The changes in body composition add risk and act as root cause of diseases. As a result, physical inactivity and sedentary life style cause risk factors (global mortality, obesity, cardio-vascular disorders, cancer, diabetes, mental health, chronic illness, disability e.g.) for humans. In order to lead a long and healthy life, each individual should take pains over healthy nutrition, following a regular exercise program and keeping average body weight.

INTRODUCTION

Teachers' professional activities are usually formed of physical activities based upon repetition and

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monotony. Connected to these activities energy consumption falls down, increase of weight occurs and it becomes difficult to keep the body composition. In accordance with body weight percentage women have more tendencies to get on weight when compared with men (Wing, 1995). So as to keep body composition there is a necessity of not only adequate and well balanced nourishment, but also a life style maintained by regular exercise habituation. Healthy life-style behaviors aren't oriented on prevention of any of an illness or discomfiture but have purpose to improve general health and well-being circumstances of individuals (Pender, 1987; Redland and Stuijbergen, 1993).

At the present day it's mentioned that most of the health problems result from inactive life style and the reality of the fact that there isn't an attitude and behavior corresponding to health (Pender, 1987; Redland and Stuijbergen, 1993). The extensive researches had done on large resident communities gives us opinion on that inactive life styles cause peoples' various chronic diseases (Costanzo *et al*, 2006; Lees and Booth, 2005). The countries falling outside normal body weight limitations, not only weakness but also obesity presents dissimilarities in both developed and developing countries. On one hand weakness is seen as an important health problem in countries which has general scarcity of food on the other hand obesity is a health problem in the front rank in developed and developing countries. Obesity is a community health problem at global dimension and at same time is an economical problem and the prevalence rates are increasing correspondingly all over the world (Bjorntorp, 2001).

Anyway profession of teaching attained professional occupation peculiar to itself demands specialization in a definite field, academic study, occupations training education and university diploma. It's also observed that such as the other individuals of the public, educators (teachers) encounter health problems body composition variation, excessive weight and obesity health problems result from our daily immobile and unhealthy life styles.

The purpose of this study was to analyze the body composition and healthy promoting life-style profile behaviors (HPLP-II) between the physical education teachers who use physical activities often as an occupation and different branch teachers inactive.

MATERIAL AND METHOD

2.1. Participants:

353 Physical Education Teacher (PET) (Male: 212; Female: 141) and 439 teachers in different branches (OBT) (Male: 264; Female: 175), totally 792 volunteer teachers are taken for this research. The subjects were elected among teachers whose age and heights of physical characteristics were very similar to each other. All subjects were informed about the scope and method of the tests and they affirm that they participate as volunteers. The socio-demographic information of subjects was obtained from the question forms prepared.

2.2. Data Collection Tools:

Healthy Life Style Behaviors Scale (HPLP-II) was used for the subject's evaluation (Walker *et al*, 1995). The adaptation of the scale was made by Esin (Esin, 1997). The scale formed of 52 entries adapted to Turkish public was applied as entries in a list. All entries of the scale are positive and prepared four graded Likert type. For each entry points 1 (never), 2 (sometimes), 3 (often) and 4 (regularly) are given in turn.

The alpha reliability coefficient of the scale varies from 0.79 to 0.94. The lowest point is 48 and the highest point is 192. This scale consists of six sub evaluation scales; realization of oneself, health responsibility, exercise habituation, nutrition habituation, interpersonal support, stress management. The questions of the scale measure the behaviors improving health related to the person's healthy life style. The rise of the points taken from the scale demonstrates that the health behaviors stated are applied at a high degree.

The subjects whose heights and waist circumference (WC) at belly level measured were taken to body composition measurement. The body weights and composition evaluations of the subjects (Body mass index-BMI-kg/m²), waist-to-hip ratio-VHR (%), biological age-BA (year), the body fat rate-BFR (%), body fat weight-BFW (kg), fat-free muscle mass-FFMI (kg), total body water-TBW (kg) were done by bioelectric impedance (BIA) analysis method (Jawon Segmental Body Composition Analyzer, model AVIS 333 PLUS) (Jawon, 2005). BIA is an analysis method depending on the fatless tissue mass and the differentiation of electrical permeability of fat (Lukaski, 2003). The measurements of the subjects were done between 8.30 and 12 in the morning, following evening hunger without taking any liquid and food corresponding to the needs of toilet demands. The metallic issues and ornaments on subjects were removed. It was demanded to grab the hand electrode from the individual in light clothes in bare feet standing upright on the aluminum shoe sole of the analysis vehicle. The original data was registered by the help of the computer subordinate to the body composition analyzer. In respect of the declaration of the subjects, the people using diuretic and tension pills and who had kidney disease weren't taken in the research and the measurement is postponed according to the menstrual cycle condition.

2.3. Classification of BMI:

The following BMI categories recently adopted by the World Health Organization were used, these are (Willett *et al*, 1999; WHO, 1998): *low* ($<18.5 \text{ kg/m}^2$), *normal* (18.5 to 24.9 kg/m^2), *overweight* (25.0 to 29.9 kg/m^2), *obesity I* (30.0 to 34.9 kg/m^2) and *obesity II* (35.0 to 39.9 kg/m^2), and *obesity III* ($\geq 40 \text{ kg/m}^2$). Body type to perceive was evaluated with those questions: *When humans can meet at same society-economic level with you, how do you evaluate body type?* Body type to perceive score were obtained as *very good* for (1), *good* (2), *low* (3) and *overweight* (4).

2.4. Statistical analysis:

Statistical analysis was done by the statistical pocket program. The considerable difference of averages in same genders between PET and OBT were calculated with Mann-Whitney U test and the differences between variables of the same gender were calculated by student-t test significance level was taken as $p < 0.05$.

Results:

There is no observation about the statistical dissimilarity from the parameters age, height, BA, BMI and BFR between male-female PET and OBTs (Table. 1). A considerable difference was observed between WC and WHR. It was confirmed that the teachers who have two children are at average.

When considering the consumption of tea, coke and fruit juice, there was no significant difference observed between male and female teachers. It was found that daily water consumption was found at 5.9 ± 3.8 glasses for males and 6.5 ± 7.2 for females. Water consumption for male teachers was found to be different, but on the contrary, there is no discrepancy observed among the female teachers. An important differentiation was observed ($p < 0.05$) in same gender groups, between PETs and OBTs among healthy life style behaviors, exercise habituation, health habituation, and realization of oneself, total HPLP and scale point's differentiation. The difference between interpersonal support of male teachers and the theme of stress management of female teachers was found considerable ($p < 0.05$). A difference between PET and OBTs considering the nutrition habituation was not observed (Table 2, $p > 0.05$).

It was found that the number of female PETs with normal body type are 84.4%, female OBT's with slim body type are 6.9% whereas it is 34.0% for male PETs and 31.4% for male OBTs in overweight body type, male teachers in obese body type were in access. It was confirmed that 64.3% of the male teachers and 79.4% of the female teachers were with normal weights in relation to their body type. The percentage of the male teachers who perceived their body type as 'excellent' was 71.4 % whereas it was 68.7% for female teachers (Table 3).

The habituation of dieting is in a lower level among male teachers when compared to females. On the basis of concerns raised from patients, it was observed that OBTs had much more health complaints. Male PETs were among the teachers who had no chronic illness i.e., no chronic disease at the highest level of 91.5%. It is found that concerning habituation of smoking 39.2% of male PET and 52.5% of female PETs never smoked and the ratio of smoking was found to be 6% for male teachers and 27.2% for female teachers (Table 3).

Discussion:

This study was planned in order to find at what degree there is a difference rise between body compositions of PET and OBT in parallel ages, weights and healthy life style behaviors. It was recorded that body measures of the individuals could change due to some factors such as height and age (Astrand and Rodahl, 1986; Mosher *et al*, 1982; McArdle *et al*, 1991). In order to prevent this and materialize the aim of the research, the individuals among PET and OBT who had similar features in height and age of physical characteristics were chosen. There was no difference ($p > 0.05$) found between height and age. It was observed that the male PETs who had similar age and heights seems to be much more in number in their weights when compared to male OBT's and among female teachers, there is no significant difference observed ($p > 0.05$). There is no difference observed between male and female PETs and OBTs in terms of BMI, BA and BFR parameters but in terms of WHR and WC, there is a difference observed (Table 1).

WHR rate is an anthropometric method of measuring fat distribution from BMI independently. When the WHR rate becomes over 1 for males and 0.9 for females, the complication effects of fat distribution cannot be ignored. The measurement of WC reflects body fat and does not include most of the bone structures (except, spinal, column) and large muscle masses due to which only the variability between people have no influence error rates (Bjorntorp, 2001). When WC shows $\geq 80 \text{ cm}$ the risk increases and $\geq 88 \text{ cm}$ for Coronary Heart Disease and important risk increases for metabolic complications (Kopelman, 2000). In our research, it was found that the rates of WHR for Physical Education Teachers are Male: 89%, Female: 83% and for Other Branch Teachers, it is male: 90%, female: 86%. In terms of WC, the data for PET are male 88.3 cm and female 80.6 cm (Table 1). From the study results, it can be observed that when WHR and WC rates are considered in performance groups, PETs are much more in better condition, but the values of the both groups are near risk boundary. It can be seen as a 'lubrication' in abdominal region. When there is an increase observed in WHR and WC parallel to the amount in excess in abdominal lubrication, the deep lubrication within the body is in excess

on parallel to that degree (Abate *et al*, 1995). In the study of Kissehah and Peiris (1989), when the WC measures were taken into consideration, the frequency of abdominal obesity was confirmed as 34.9% (Kissehah and Peiris, 1989). The prevalence of weight increases concurrently with age, both for males as well as females. The starting age of obesity constitutes a risk factor in case of an individual. When age and BMI increase, the percentage of WHR increases accordingly (Jakicic *et al*, 1993).

It is reported that there is a strong relationship exist among abdominal obesity and hypertension, Diabetes Mellitus, insulin resistance and ascending blood glucose levels (Abate *et al*, 1995; Atkinson, 2000; Lawrence, 2007). As WHR rate rises, the sensibility of insulin falls down and the risk of Diabetes Mellitus increases (Golay and Felber, 1994; Colditz *et al*, 1995). It was observed that most of the teachers (85%) participated in our study had no health problems and in addition to this, diabetes, tension and heart-vessel diseases are the most health problems observed among teachers. It was observed that when the health circumstance of PET is represented, they had less (male 91.5%, female 83.3%) health problems (Table 3).

Obesity, characterized by the increase in body fat rate, is an alarming and most important commonwealth health problem spreading increasingly among most of the countries especially foremost developed countries (Atkinson, 2000; Lawrence, 2007). Problems concerning obesity are increasing all over the world (Atkinson, 2000; Seidell, 1999) and obesity prevalence and the evaluation of anthropometric values change according to communities (Bjorntorp, 2001). Besides, body composition also may show ethnic differences (Takasaki *et al*, 2003). In our study, it can be appraised that the female teachers are under 'normal' body type (79.4%) when compared with male teachers. Further, it can also be said that this issue of fact resulted from more disciplined behavior of female teachers so as to keep the body type healthy, when compared to male teachers. In this study, it was observed that the female PETs concerning the body type (84.5%) were in better condition than male PETs. It was confirmed that among the teachers, the ones who are satisfied with their body types when compared with male teachers found to be 71.4%. But this is less with female teachers (68.7%) who perceived that they are overweight (19.3%) and it was observed that regular dieting habituation was much more (5.4%) widespread among female teachers (Table 3).

The alteration on the body type, immoderate nutrition and habituation of smoking are the factors that are standing as foremost deforming health problems (Wing, 1995; Kopelman, 2000; Özer, 2001). When body type expressing 'health condition' and 'habituation of smoking' are taken into consideration, it can be said that male PETs have more habituation including health risks, but on the other hand, female PETs carry less health risks when compared to all other groups (Table 3). In relation to cigarette smoking habituation, 39.2% of male education teachers, 52.5% of female education teachers' never smoke and the ratio of smoking is observed as 36.6% in males and 27.2% in females (Table 3).

Water is vital to lead a healthy life. Approximately 50-70% of human body is composed of water (Eroğlu, 1997). It is stated in the literature that in order to lead a normal life, an individual should intake 1,600 ml (8 glasses) water on daily average (Colombani and Mannhart, 2000; Ersoy, 1995; Ersoy, 1993). Water consumption among male teachers is 6.6 glasses whereas it is 5.9 glasses for female teachers which shows that water consumption consciousness and habituation are inadequate. It was found that tea was consumed mostly by male teachers (7.5 glasses). With regards to daily tea consumption, it was observed that both male and female PETs consume much more than OBTs and the consumption difference between male teachers was found statistically meaningful ($p < 0.05$ Table 1). It can be assumed that PETs have easy accessibility towards tea and other drinks due to their work environment or otherwise, PETs may drink tea during their lesson and because of these reasons, the tea consumption pattern seems to be higher among PETs.

Developing health conditions is a process involving factors that affect variation operations and methods, providing a conversion of behaviors, so that the individuals reach social environment and qualified health levels, both physically and physiologically (Pender, 1987; Redland and Stuijbergen, 1993). There is a significant difference found ($p < 0.05$ Table 2) in favor of male and female PETs with regards to exercise and nutrition habituation, which are the components of healthy life style, health responsibility, interpersonal support, implementation of oneself and total HPLP points. It can be affirmed that this differentiation could be caused because the PETs have versatile professional activities. The life quality of an individual has direct proportion with participation in activities (i.e., sports, exercise, health, recreation etc.) so that the health is improved for which the free time services are provided. With the lack of these free time activities in our country, Other Branch Teachers (OBTs) mostly keep clear of these services.

Generally, it was proved in many researches that exercises restore life quality, strengthen heart-vessel system, rise individuals' moral via stress reduction with sense of comfort (Ellingson and Conn, 2000; Courneya *et al*, 2002; Rippe *et al*, 1998). Physical inactivity remains the prominent cause of obesity progress. In modern societies, the opportunity to carry on business via less energy consumption and putting in much more time and sitting in front of the screens accumulates the energy as fat bodies which the body could not use instantly (Bray, 1989; Buchowski and Sun, 1996).

Physical inactivity in Turkey, especially in the past 25-30 years and malnutrition habituation made obesity widespread. It was reported that the contribution of physical inactivity in obesity prevalence was 67.5% (Bray,

1989). A study showed that the obesity prevalence and overweight of teachers were 56.9% (Aykut and Horoz, 2011). Another research confirmed that HPLP exercise habituation points (7.87 ± 2.85) were in lower levels (Arslan et al, 2011). Though the benefits of physical activities are higher, only few individuals do participate in regular physical activity (USDHS, 2000). In our research, it was observed that HPLP exercise habituation points (8.9 ± 3.3) of female teachers were lesser than male teachers. Further, we also found that the total points of those OBTs with healthy life behaviors' and the difference of HPLP points found to be higher when compared to their PETs (Table 2).

To conclude, from the study results, it can be inferred that obesity increases for both PET and OBTs. It is also observed that the female teachers generally face challenges like child birth kilos, malnutrition habituations, body composition changes in relation with sedentary life style, obesity problems when compared to their male counterparts. . The changes in body composition act as a causal agent to many diseases. Although healthy life style behavior scale points of PETs were found in high level when compared to OBTs, it was observed, that in accordance with their body types, male PETs were overweight when compared with OBTs. It was determined that there is no significant difference in terms of body composition between PET and OBT and it was also confirmed that female PETs are less prone to health risks. Physical inactivity and sedentary life style act as risk factors for many illness (for example, global mortality, obesity, cardio-vascular disorders, cancer, diabetes, mental health, chronic illness, disability) among humans. On the other hand, physical activities and mental wellness promote the level of well-being, aerobic capacity, muscular fitness, flexibility, improve body composition and physical capacity. Further, regular physical activities reduce sudden death, cardio-vascular diseases, high blood pressure, colon cancer risks, stress, anxiety and type-2 diabetes. In order to lead a healthy and sane life, each individual should take painstaking effort over healthy nutrition, regular exercise program and keeping average body weight. In spite of its benefits, only few individuals practice regular physical activities and exercises. Engaging in physical activities and exercises decline as the age or grade in school increases and generally people who have lower levels of education and income are least active in their leisure time. When we look at the global population, for example in the US, only about 23% of the adults reported regular, vigorous physical activity that include large muscle groups in dynamic movement for 20 minutes or longer and 3 or more days per week. Furthermore, 15% of the adults reported physical activity for 5 or more days per week for 30 minutes or longer. But 40% reported that they do not participate in any regular physical activity. In addition, in Turkey, it is reported that there is no physical activity especially for the past 25-30 years and malnutrition habituation that resulted in widespread obesity among the people. In conclusion, for the present and towards the future, the global population need to do regular physical activities and exercises for their wellness and health.

Table 1: Comparison of the body composition parameters, the number of children habits of daily liquid consumption liquids daily of PET and OBT.

Variables	PET (N:353)		OBT (N:439)		Totally (N:792)		p
	Male (n:212)	Female (n:141)	Male (n:264)	Female (n:175)	Male (n:476)	Female (n:316)	
Age (year)	27.1±7.8	26.3±6.8	27.8±8.5	26.9±7.2	27.4±8.1	26.6±7.0	-
Height (cm)	176.3±6.0	165.3±5.3	174.4±6.2	163.8±6.0	175.3±6.2	164.2±5.9	-
Weight (kg)	^a 76.1±9.0	59.7±7.7	^a 73.6±9.1	60.1±9.3	74.7±9.2	60.0±8.7	^a 0.05
Biologic Age (year)	28.7±6.5	25.9±5.3	27.0±6.2	26.5±7.2	27.8±6.4	26.2±6.3	-
BMI (kg/m ²)	24.5±2.5	21.8±2.3	24.2±2.8	22.4±3.0	24.3±2.7	22.2±2.8	-
BMR (%)	20.5±5.9	25.9±5.1	21.0±6.7	26.3±6.2	20.8±6.3	26.1±5.6	-
WC (cm)	^a 88.3±9.3	^a 80.6±10.3	^a 89.8±8.6	^b 83.5±11.2	89.1±8.9	82.1±10.8	^{a,b} 0.05
WHR (%)	^a 0.89±0.07	^a 0.83±0.06	^a 0.90±0.07	^b 0.86±0.08	0.90±0.07	0.84±0.8	^{a,b} 0.05
Daily fluid consumption habit							
Water (Glass)	^a 6.6±4.2	6.4±3.7	^a 5.3±3.2	6.6±8.3	5.9±3.8	6.5±7.2	^a 0.05
Tea (Glass)	7.5±4.3	5.5±3.4	7.6±4.2	6.1±3.6	7.5±4.3	5.9±3.6	-
Cola (Glass)	1.6±1.1	1.6±0.8	1.8±2.1	1.8±1.3	1.7±1.6	1.7±1.1	-
Fruit juice (Glass)	1.4±0.9	1.7±0.7	1.4±0.6	1.5±1.2	1.4±0.8	1.6±1.0	-
Other drinks (Glass)	1.8±1.4	2.1±1.3	1.7±1.2	1.8±1.1	1.8±1.3	1.9±1.6	-
Number of children	2.0±0.79	2.0±0.65	2.0±1.21	2.0±0.68	2.0±1.13	2.0±0.67	-

^a Males, ^b Females. They refers to the significance with each other in p<0.05.

Table 2: The comparison of the HPLP scale between PET and OBT.

Variables	PET (N:353)		OBT (N:439)		Totally (N:792)		p
	Male (n:212)	Female (n:141)	Male (n:264)	Female (n:175)	Male (n:476)	Female (n:316)	
The exercise habit	^a 13.5±3.5	^b 12.3±3.5	^a 10.2±3.5	^b 8.9±3.3	11.7±3.9	9.9±3.7	^{a,b} 0.05
Nutrition habit	15.9±3.6	16.4±3.4	15.6±3.5	16.0±3.2	15.8±3.5	16.1±3.3	-
Health care responsibility	^a 23.7±5.8	^b 24.6±6.6	^a 22.1±5.3	^b 22.1±5.3	22.8±5.6	22.8±5.8	^{a,b} 0.05
Interpersonal support	^a 21.6±3.7	20.8±4.1	^a 20.5±3.7	20.3±3.5	21.0±3.8	20.5±3.7	^a 0.05

Stress Management	18.8±3.6	^b 19.2±3.7	18.2±3.7	^b 17.2±3.8	18.5±3.7	17.7±3.8	^b 0.05
Self-realization	^a 39.6±5.5	^b 40.2±6.5	^a 38.2±6.7	^b 38.4±5.9	38.8±6.3	38.9±6.2	^{a,b} 0.05
Totally HPLP score	^a 133.1±17.5	^b 133.6±20.0	^a 124.8±18.6	^b 122.8±16.7	128.5±18.6	125.9±18.4	^{a,b} 0.05
HPLP score difference (%) ¹	^a 58.9±17.5	^b 58.4±20.0	^a 67.1±18.6	^b 69.2±16.7	63.5±18.5	66.1±18.4	^{a,b} 0.05

The maximum score in HPLP scale is 192. Score Difference formula "Difference =192-HPLP totally score. "a" Males, "b" Females. They refers to the significance with each other in p<0.05.

Table 3: The comparison of the habituation of body type, perception of body type, health condition, going on a diet and smoking a cigarette of between PET and OBT.

Variables /n (%)	PET		OBT		Totally		p
	(N:353)		(N:439)		(N:792)		
	Male	Female	Male	Female	Male	Female	
Body Type*	(n:212)	(n:141)	(n:264)	(n:175)	(n:476)	(n:316)	
Slim	-	8(5.7)	4(1.5)	12(6.9)	4(0.8)	20(6.3)	-
Normal	^a 133(62.7)	^b 119(84.4)	^a 173(65.5)	^b 132(75.4)	306(64.3)	251(79.4)	^{a,b} 0.05
Overweight	72(34.0)	^b 14(5.7)	83(31.4)	^b 27(15.4)	155(32.6)	41(13.0)	^b 0.05
Obese-I	7(3.3)	-	4(1.5)	4(2.3)	11(2.3)	4(1.3)	-
Detection of self-body type							
Very good	^a 165(77.8)	^b 101(71.6)	^a 175(66.3)	^b 116(66.3)	340(71.4)	217(68.7)	^{a,b} 0.05
Good	^a 8(3.8)	12(8.5)	^a 26(9.8)	14(8.0)	34(7.1)	26(8.2)	^a 0.05
Slim	^a 4(1.9)	^b 8(5.7)	^a 16(6.1)	^b 4(2.3)	20(4.2)	12(3.8)	^{a,b} 0.05
Overweight	^a 35(16.5)	^b 20(14.2)	^a 47(17.8)	^b 41(23.4)	82(17.2)	61(19.3)	^{a,b} 0.05
Dieting Habits							
Never	180(84.9)	85(60.3)	220(83.3)	108(61.7)	400(84.0)	193(61.1)	-
Sometimes	^a 23(10.8)	^b 33(23.4)	^a 37(14.0)	^b 54(30.9)	60(12.6)	87(27.5)	^{a,b} 0.05
Often	6(2.8)	^b 13(9.2)	4(1.5)	^b 6(3.4)	10(2.1)	19(6.0)	^b 0.05
Regularly	3(1.4)	^b 10(7.1)	3(1.1)	^b 7(4.0)	6(1.3)	17(5.4)	^b 0.05
Expressing the Health Situation							
No disease	^a 194(91.5)	^b 123(87.2)	^a 219(83.0)	^b 146(83.4)	413(86.8)	269(85.1)	^{a,b} 0.05
Diabetes	5(2.4)	-	3(1.1)	-	8(1.7)	-	-
Blood Pressure	^a 1(0.5)	4(2.8)	^a 13(4.9)	4(2.3)	14(2.9)	8(2.5)	^a 0.05
Cardiovascular	3(1.4)	4(2.8)	5(1.9)	4(2.3)	8(1.7)	8(2.5)	-
Others	^a 9(4.2)	^b 10(7.1)	^a 24(9.1)	^b 21(12.1)	33(6.9)	31(9.8)	^{a,b} 0.05
Smoking Habits							
Never	^a 83(39.2)	^b 74(52.5)	^a 96(36.4)	^b 80(45.7)	179(37.6)	154(48.7)	^{a,b} 0.05
Smoking	^a 82(38.7)	^b 33(23.4)	^a 92(34.8)	^b 53(30.3)	174(36.6)	86(27.2)	^{a,b} 0.05
Sometimes	^a 15(7.1)	22(15.6)	^a 36(13.6)	24(13.7)	51(10.7)	46(14.6)	^a 0.05
Quit smoking	32(15.1)	^b 12(8.5)	40(15.2)	^b 18(10.3)	72(15.1)	30(9.5)	^b 0.05

"a" Male groups, "b" Female groups. They refers to the significance with each other in p<0.05.

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