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HEALTH-PROMOTING LIFESTYLE BEHAVIORS OF EMPLOYEES IN PUBLIC SECTOR

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Abstract*

Aim: The purpose of this research is to determine the healthy lifestyle behaviors of employees in the public sector from the point of different variables.

Methods: The working group consists of a total of 121 individuals, 48 of which are women (%39,7), 73 of which are men (%60,3), working in three different public bodies in Trabzon. Simple random sampling is used in choosing the working group. The datum is gathered via "Health-promoting Lifestyle Profile" which was ensured reliable and valid by Walker, Sechrist and Pender (1987) and adapted to Turkish by Bahar et al. (2008). The gathered data are analyzed using SPSS 18 package program. Normal distribution conformity of the datum is tested with Kolmogorov-Smirnov before the analysis. Because the distribution of the datum is not normal, non-parametric tests have been applied ($p < 0,05$). In the dual evaluation, Mann-Whitney U test is applied; in situations when there were more than two variables, Kruskal Wallis H test is applied. Cronbach Alpha Coefficient of Internal Consistence is calculated for overall and sub-dimensions of the scale. Overall reliability value of the scale is calculated as 0.94 while reliability value of sub-dimensions is calculated, respectively, in physical activity as 0.88, in nutrition as 0.78, in moral development as 0.77, in interpersonal relations as 0.82, in stress management as 0.76 and in health as 0.85.

Results: While the health-promoting lifestyle behaviors of employees in public sector in overall scale and sub-dimensions do not show meaningful difference according to the gender, educational background, profession, marital status, years of service, health problem, the reason for working out ($p > 0,05$); the health-promoting lifestyle of 44 employees (%36,4) in public sector ranging in age from 25 to 35 shows meaningful difference from employees ranging in age from 36 to 46 and from 47 to 59 ($p < 0,05$). There is a meaningful difference in the scale about physical activity between the way the employees spend their time after work hours and health-promoting lifestyle level. This difference is meaningful in favor of the ones who do physical activities after work hours. The meaningful difference between overall scale and sub-dimensions for employees who work out and health-promoting lifestyle is in favor of the ones who do sports.

Conclusions: It is confirmed that working out in health-promoting lifestyles of employees in a public body is an important criterion. Also, it can be said that the health-promoting lifestyle of employees who do physical activities after work hours is in good condition. It is also thought that including activities that can enhance the health-promoting lifestyle of employees working in public bodies, can raise the awareness level of employees in this matter.

Keywords: Health-promoting lifestyles, Public servant, physical activity

Introduction

Modern-day understanding of health was established on the individual's gaining the behaviors that will protect, maintain and develop the status of goodness and also providing correct decisions related to his/her health (Kong, 1995). Therefore, individual should avoid the risky behaviors such as smoking, drinking alcohol, using substance, nutritional behaviors, violence behaviors, unhealthy weight, communication problems with family and stress (Çimen, 2003). Only by avoiding these behaviors, individual can display behaviors of healthy life style.

Healthy life style was defined as individual's controlling the whole behaviors influencing his/her health and selecting the behaviors in conformed with the status of his/her health to regular daily activities (Tripp and Stachowiak, 1992; Walker, Sechrist and

Pender, 1987). As a behavior, it indicates itself as playing sports sufficiently and regularly, eating healthily, not to smoke, responsibility of health, stress management and taking hygienic precautions (Esin, 1999). According to Pender (1992), behaviors of healthy life style are inner development, responsibility of health, exercise, nutrition, interpersonal relations and stress management. These factors are important on forming the behaviors of healthy life style particularly on the individuals working in public institute.

According to World Health Organization (WHO), developing a healthy life style in workplace is possible with creating secure and healthy work environment; increasing the skills of self-confidence, inner power, job satisfaction and protecting the health; and decreasing the stress. Health and security

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programs performing in conformed with work places gain employees a positive and attentive outlook. These programs decrease the employees' numbers of health charges, punishments and the status of absenteeism; in addition to this, they increase performance of employees (Esin and Aktaş, 2012). There are studies revealing that especially the programs of developing the health, in which the behaviors of positive health related to nutrition, physical activity, not to smoke are gained, increase the employees' rate of giving up smoking, losing weight and doing activity regularly, and increase the performance of employees (Mukamal, Ding and Djoussé, 2006). To determine the health level of a working individual and to evaluate the health behaviors, factors in workplace environment and also characteristics of the individual (age, gender, status of health, educational status, genetic) are considered in these studies (Bilir and Yıldız, 2006).

When considered especially the working hour and work load of the employees, physical activity, one of the healthy life factors are important for them. Movement necessity of an employee who doesn't move for a long time during the day is inevitable. At this point, individuals' levels of displaying the behaviors of healthy life style are important. It was figured out that studies on the behaviors of healthy life style were generally applied on the health care personnel (Esin, 1999; Yalçınkaya, Gök Özer and Karamağlu, 2007; Ramachandran, Wu, Kowitlawakul and Wang, 2016) and university students (Güzel Ertop et al., 2012; İlhan, 2012; Kocaakman, Aksoy and Eker, 2010). There are limited studies examining the healthy life style of employees (Arslan and Ceviz, 2007; Ulutaşdemir, Kılıç, Zeki and Beğendi, 2015). It is thought that present study will make up this deficiency.

Method

In this section; research model, study group, data collection, data analysis are included.

Research Model

In this research survey model, one of the quantitative research approaches was used (Büyüköztürk et al., 2008; Karasar, 2009). Survey model is a research approach that aims to define a situation existing in past and today (Karasar, 2009). In this model, it is tried to explain the existing relation between the dependent and independent variables (Crano & Brewer, 2002). In present study, healthy life styles of employees in the public sector were analyzed according to independent variables (age, gender, educational status, marital status, job, years of service, status of valuing the time apart from working hour, status of playing sports, reason of playing sports, factors hindering playing sports).

Study Group

Study group consists of 48 female (%39.7) and 73 male (%60.3) totally 121 person working in three different public institute in the city of Trabzon in 2015. Convenience sampling method, one of the purposeful sampling methods, was used in the selection of study group. This method enables researcher to study with easily accessible and more proper groups (Yıldırım and Şimşek, 2012).

Data Collection

In the stage of data collection, it was provided that participation of participants was based on voluntariness. Data collection were obtained through "Personal Information Form" created by researchers, and "Behaviors of Healthy Life Style Scale" provided reliability and validity by Walker, Sechrist and Pender (1987) and later provided again the reliability and validity by adding four items in 1996, adapted by Bahar et al., (2008) into Turkish. Personal information form was prepared for the purpose of obtaining the personal information of employees included in study group. Personal information are age, gender, educational status, marital status, job, years of service, status of valuing the time apart from working hour, status of playing sports, reason of playing sports, factors hindering playing sports. The behaviors of healthy life style scale compose of 52 items and 6 factors. Each sub-dimension of the scale can be used alone independently. Scale is a 4 point Likert scale and minimum point to be gotten is 52, maximum point is 208. The whole items of scale are positive. Cronbach Alpha reliability coefficient of the scale in original version is 0.94. Reliability values in the sub-factors of scale changes between 0.79 and 0.87.

Data Analysis

Obtained data were analyzed with SPSS 18 packaged software. Whether or not data show normal distribution was tested with Kolmogorov Smirnov. Since the data distribution isn't normal, non-parametric tests were applied ($p < 0,05$). Paired comparisons were analyzed with Mann Whitney U, triple and more comparisons were analyzed with Kruskal Wallis test. For the general of scale and sub-dimensions of scale, Cronbach Alpha Internal Consistency Coefficient was calculated. Reliability coefficient values obtained in present study are 0.94 for general of scale, and reliability values related to sub-dimensions are respectively 0.88 for physical activity, 0.78 for nutrition, 0.77 for inner development, 0.82 for interpersonal relation, 0.76 for stress management and 0.85 for responsibility of health.

Results

In this chapter, it was examined the analyses included which the relationship between dependent and independent variables of the research.

Table 1: The Distribution of The Healthy Life Style Behavior Points of Participants

	n	X	Sd	Min	Max	Skewness	Kurtosis
Physical Development	121	16,57	5,65	8,00	32,00	,535	-,585
Nutrition	121	22,30	5,08	13,00	36,00	,238	-,387
Inner Development	121	26,46	4,43	12,00	36,00	-,558	,459
Interpersonal Relation	121	26,50	7,01	14,00	66,00	2,850	15,176
Stress Management	121	19,27	4,33	11,00	29,00	,057	-,660
Health Responsibility	121	21,02	5,55	9,00	36,00	,161	-,442
Scale	121	132,14	24,98	76,00	203,00	-,006	-,367

As it is seen in Table 1, healthy life style behavior mean points of participants were calculated as ($X=16,57\pm 5,65$) for physical development dimension, ($X=22,30\pm 5,08$) for nutrition dimension, ($X=26,46\pm 4,43$) for inner development dimension, ($X=26,50\pm 7,01$) for interpersonal relation dimension, ($X=19,27\pm 4,33$) for stress management dimension,

($X=21,02\pm 5,55$) for health responsibility and ($X=132,14\pm 24,98$) for general of scale. When considered the values of skewness and kurtosis, it was figured out that points related to sub-dimensions and general of scale aren't conformed with normal distribution.

Table 2. According to Gender Variable Mann Whitney U Test Results Conducted to Determine Whether or Not The Healthy Life Style Behaviors of Employees Change

	Gender	n	Mean Rank	Total Rank	U	p
Physical activity	Female	48	50,94	2445,00	1269,000	0,010*
	Male	73	67,62	4936,00		
Nutrition	Female	48	61,18	2936,50	1743,500	0,964
	Male	73	60,88	4444,50		
Inner Development	Female	48	58,03	2785,50	1609,500	0,449
	Male	73	62,95	4595,50		
Interpersonal Relation	Female	48	57,77	2773,00	1597,000	0,410
	Male	73	63,12	4608,00		
Stress Management	Female	48	61,05	2930,50	1749,500	0,989
	Male	73	60,97	4450,50		
Health Responsibility	Female	48	59,44	2853,00	1677,000	0,690
	Male	73	62,03	4528,00		
Total	Female	48	56,28	2701,50	1525,500	0,230
	Male	73	64,10	4679,50		

When examined Table 2, according to sex of employees, there is no statistically meaningful difference between the total points obtained from the sub-dimensions of nutrition ($U=1743,500$; $p=0,964>0,05$), inner development ($U=1609,500$; $p=0,449>0,05$), interpersonal relations ($U=1597,000$; $p=0,410>0,05$), stress management ($U=1749,500$; $p=0,989>0,05$) and health

responsibility ($U=1677,000$; $p=0,690>0,05$) and general of the scale. There is a statistically meaningful difference among the total points received from physical development sub-dimension of the scale ($U=1269,000$; $p=0,010<0,05$). When considered the mean ranks, mean ranks of male employees (67.62) are higher than the mean ranks of female employees (50.94).

Table 3. According to Age Variable Kruskal-Wallis H Test Results Conducted to Determine Whether or Not The Healthy Life Style Behaviors of Employees Change

	Age	n	Mean Rank	sd	χ^2	p	Meanful Difference
Physical Development	25-35	44	72,32	2	7,765	0,021	25-35* - 36-46 25-35* - 47-59
	36-46	34	51,25				
	47-59	43	57,13				
Nutrition	25-35	44	62,69	2	0,288	0,866	-
	36-46	34	58,44				
	47-59	43	61,29				
Inner Development	25-35	44	67,14	2	2,183	0,336	-
	36-46	34	56,46				
	47-59	43	58,31				



Interpersonal Development	25-35	44	65,70	2	1,253	0,535	-
	36-46	34	58,10				
	47-59	43	58,48				
Stress Management	25-35	44	67,73	2	3,596	0,166	-
	36-46	34	52,60				
	47-59	43	60,76				
Health Responsibility	25-35	44	64,73	2	0,995	0,608	-
	36-46	34	56,81				
	47-59	43	60,50				
Total	25-35	44	68,02	2	3,278	0,194	-
	36-46	34	53,79				
	47-59	43	59,51				

*p<0,05

According to Table 3, statistically meaningful difference between the employees' displaying healthy life style behaviors and the sub-dimensions of nutrition (χ^2 (sd=2, n=121)=0,288; p=0,866>0,05), inner development (χ^2 (sd=2, n=121)=2,183; p=0,336>0,05), interpersonal relations (χ^2 (sd=2, n=121)=1,253; p=0,535>0,05), stress management (χ^2 (sd=2, n=121)=3,596; p=0,166>0,05), health responsibility (χ^2 (sd=2, n=121)=0,995; p=0,608>0,05) and general (χ^2 (sd=2, n=121)=3,278; p=0,194>0,05) of the scale wasn't figured out (P>0,05). There is a statistically meaningful difference between the total points

received from the sub-dimension of physical development of the scale and employees' age (χ^2 (sd=2, n=121)= 7,765; p=0,021<0,05). In the sub-dimension of physical development, healthy life styles of 44 (%36.4) employees whose age ranges are 25-35 years, display difference from the employees whose age ranges are 36-46 years and 47-59 years (p<0,05). It was seen that the behaviors of healthy life styles of the employees whose ages change between 25-35 are higher. This can be explained with the decrease tendency of physical development on displaying the behaviors of healthy life styles when the ages of employees increase.

Table 4. According to Status of Valuing The Time apart from Working Hour Variable Kruskal-Wallis H Test Results Conducted to Determine Whether or Not The Healthy Life Style Behaviors of Employees Change

	Conducted Activities	n	Mean Rank	sd	χ^2	p	Meanful Difference
Physical Development	1	65	56,40	4	17,232	0,002*	Resting - Physical Activity*
	2	15	56,27				
	3	7	66,64				
	4	19	89,97				
	5	15	46,33				
Nutrition	1	65	57,08	4	1,984	0,739	-
	2	15	62,60				
	3	7	63,50				
	4	19	67,55				
	5	15	66,93				
Inner Development	1	65	60,86	4	0,825	0,935	-
	2	15	61,60				
	3	7	51,29				
	4	19	65,18				
	5	15	60,23				
Interpersonal Development	1	65	61,27	4	0,390	0,983	-
	2	15	58,23				
	3	7	55,29				
	4	19	63,34				
	5	15	62,30				
Stress Management	1	65	58,52	4	4,754	0,313	-
	2	15	58,43				
	3	7	57,43				
	4	19	76,92				
	5	15	55,83				
Health Responsibility	1	65	59,70	4	0,908	0,923	-
	2	15	62,90				
	3	7	71,29				
	4	19	62,68				
	5	15	57,80				



	1	65	59,03	4	3,096	0,542
	2	15	57,80			-
Total	3	7	59,43			
	4	19	73,89			
	5	15	57,13			

*p<0,05

When considered Table 4, statistically meaningful difference between the status of valuing the time apart from working hour of employees and the total points received from the sub-dimensions of nutrition ($\chi^2(sd=4, n=121)=1,984; p=0,739>0,05$), inner development ($\chi^2(sd=4, n=121)= 0,825; p=0,938>0,05$) interpersonal relations ($\chi^2(sd=4, n=121)= 0,390; p=0,983>0,05$), stress management ($\chi^2(sd=4, n=121)= 4,754; p=0,313>0,05$), health responsibility ($\chi^2(sd=4, n=121)= 0,908;$

$p=0,923>0,05$) and general ($\chi^2(sd=4, n=121)= 3,096; p=0,542>0,05$) of the scale ($p>0,05$).

There is a statistically difference between the total points received from the sub-dimension of physical development of the scale and ($\chi^2(sd=4, n=121)= 17,232; p=0,002<0,05$). This can be interpreted as the fact that employees spend the time apart from working hour has a positive effect on their healthy life styles behaviors.

Table 5. According to The Status of Playing Sports Variable Mann Whitney U Test Results Conducted to Determine Whether or Not The Healthy Life Style Behaviors of Employees Change

	Status of Playing Sports	n	Mean Rank	Total Ranks	U	p
Physical Activity	Yes	45	82,99	3734,50	720,500	0,000*
	No	76	47,98	3646,50		
Nutrition	Yes	45	71,32	3209,50	1245,500	0,012*
	No	76	54,89	4171,50		
Inner Development	Yes	45	71,26	3206,50	1248,500	0,013*
	No	76	54,93	4174,50		
Interpersonal Relations	Yes	45	69,54	3129,50	1325,000	0,039*
	No	76	55,94	4251,50		
Stress Management	Yes	45	75,57	3400,50	1054,500	0,000*
	No	76	52,38	3980,50		
Health Responsibility	Yes	45	68,93	3102,00	1353,000	0,055
	No	76	56,30	4279,00		
Total	Yes	45	76,12	3425,50	1029,500	0,000*
	No	76	52,05	3955,50		

*p<0,05

In table 5, according to status of playing sports, there is a statistically meaningful difference among the total points received from the sub-dimensions of physical activity ($U=720,500; p=0,000<0,05$), nutrition ($U=1245,500; p=0,012<0,05$), inner development ($U=1248,50; p=0,013<0,05$), interpersonal relations ($U=1325,000; p=0,039<0,05$), stress management ($U=1054,500; p=0,000<0,05$) and the general ($U=1029,500; p=0,000<0,05$) of the scale. When considered the mean ranks in physical activity dimension, mean ranks of employees playing sports (82.99) are higher than the mean ranks of employees who don't play sports (47.98). When considered the mean ranks in nutrition dimension, mean ranks of employees playing sports (71.32) are higher than the mean ranks of employees who don't play sports (54.89). When considered the mean ranks in inner development dimension, mean ranks of employees playing sports (71.26) are higher than the mean ranks of employees who don't play sports (54.93). In interpersonal

relations dimension, mean ranks of employees playing sports (69.54) are higher than the mean ranks of employees who don't play sports (55.94). In stress management dimension, mean ranks of employees playing sports (75.57) are higher than the mean ranks of employees who don't play sports (52.38). In the general of scale, the mean ranks of employees playing sports (76.12) are higher than the mean ranks of employees who don't play sports (52.05). These findings can be explained with the fact that status of playing sports of the employees has an influence on displaying the behaviors of healthy life styles.

Discussion

In this study, it was aimed to examine the status of doing physical activity and healthy life styles of employees in the public sector in terms of various variables (age, sex, educational status, marital status, job, years of service, status of valuing the time apart from working hour, status of playing sports, reason of playing sports, factors hindering playing sports). Research finding revealed that in scale's sub-



dimensions of age, sex, valuing the time apart from working hours and status of playing sports, there is meaningful difference in terms of employees' displaying the behaviors of healthy life styles.

The fact that mean points of healthy life styles behaviors scale and sub-dimensions are high indicates that individual has healthy behaviors towards healthy life style. In this research, employees' mean points of healthy life style behaviors scale were found as $132,14 \pm 24,98$. When considered that maximum point to be gotten from scale is 208, it can be said that employees display healthy life styles behaviors at the medium level. In the study on health care personnel conducted by Yalçinkaya, Özer and Karamanoğlu (2007), similar finding was obtained. Also in studies on different samples, similar finding was acquired. In the study of Güzel Ertop, Yılmaz and Erdem (2012), mean points obtained from scale was found as $116,89 \pm 18,96$. Similar finding were obtained from the study of Aksoy and Uçar (2014). In the study on the behaviors of healthy life style of nursing students, mean points obtained from scale was found as $136,12 \pm 19,16$. When considered the sub-dimensions of scale, it was seen that employees received minimum point from the physical activity ($16,57 \pm 5,65$), maximum point from the interpersonal relations ($26,50 \pm 7,01$). Also in the study of Pasinoğlu and Gözümlü (1998) on health behaviors of personnel working in health care services, minimum mean point was from physical activity. Similar finding are in parallel with the results obtained from the studies (Ayaz, Tezcan and Akıncı, 2005; Diez and Perz-Fortis, 2009; Ertop et al., 2014; Yıldırım and Bekar, 2005). The fact that the sub-dimension of physical activity point is low indicates that positive habits related to this activity aren't adopted and aren't turned into behavior. This can be supported with the fact that the rate of employees' status of playing sports is low.

According to sex variable, employees' tendency of displaying healthy life style behaviors indicated meaningful difference in the sub-dimension of physical activity. Healthy life style behaviors of males ($X=67,62$) are higher than the healthy life styles behaviors of females ($X=50,94$). This indicates that males are physically more active than females and they spare time for playing sports. Also in the study of Ünalın, Şenol, Öztürk and Erkorkmaz (2007) on healthy life styles of medical vocational high school students, mean points of healthy life style behaviors of males are meaningfully different from the mean points of females. In the study of Ergün and Erol (2004), in physical activity which is a sub-dimension of health life style behaviors scale, it was found that males have higher mean than females. This finding shares similarity with present study. The sub-dimension of physical activity shows at what level the exercise which is an irreplaceable factor of healthy life is applied by individual. Also in sample

in which study was conducted, it can be said that the fact that general of males are physically in active positions and females work generally in desk jobs led this difference.

Within research, when considered the healthy life style behaviors of employees according to age, even though there is no meaningful difference according to age in the sub-dimensions of inner development (67,14), interpersonal relation (65,70), stress management (67,73) and health responsibility (64,73); it was seen that mean became different from each other. It was revealed that physical activity development behaviors of employees whose ages change between 25-35 applied at higher level than the employees whose ages change between 36-46 and 46-59. This reveals that when getting older, employees don't attach enough importance to the physical activity on displaying healthy life style behaviors. It was determined that there is an inverse relationship between displaying healthy life style behavior and physical activity.

According to the variable of status of valuing the time apart from working hour of employees, meaningful difference wasn't determined except physical activity dimension. It was seen that employees value their times apart from working hour by resting (56,40). However, it was determined that only in the sub-dimension of physical activity, there is a meaningful difference between healthy life style behaviors scale and sub-dimension ($p < 0,05$). It was seen that employees valuing the time apart from working hours by doing physical activity (86,97) display higher healthy life style behaviors than the employees valuing the time by resting (56,40). This is an expected result. It is an expected situation that individuals who are physically active participate in this activity apart from the working hours. This result shares similarity with the findings obtained from the study of Yalçinkaya et al., (2007). The mean points, obtained from the scale, of individuals spending the leisure time by playing sports are higher than the other groups.

According to status of playing sports, the healthy life style behaviors of employees displayed meaningful difference in favor of employees playing sports in the whole sub-dimensions except health responsibility ($p > 0,05$) and in the general of scale ($p < 0,05$). These findings share similarity with the studies in literature. It was found that the points of nurses exercising regularly obtained from scale are higher than the nurses who don't regularly exercise (Hawks, 2002; Cihangiroğlu and Devenci, 2011; Özkan and Yılmaz, 2008). It was determined in present study that %36.1 of employees play sports. The influence of the sport on the level of health was revealed with many studies. In the study of Yalçinkaya et al. (2007), it was figured out that health care personnel exercising 3-4 or more a week

receive more points in the sub-dimensions and general of the scale.

Conclusion

As a result, it was determined that the employees' behaviors of healthy life style are at medium level. It was figured out that in terms of doing physical activity, males are more active than the females in displaying healthy life style behaviors. Also it was seen that there is an inverse proportion between displaying healthy life style behavior and age in terms of physical activity. When getting older, decrease occurs at the rate of individuals' doing physical activity. It was figured out that the activity done apart from the working hours has an effect on employees' displaying healthy life style behaviors and individuals playing sports as compared with the individuals who don't play sports display better behaviors of healthy life style.

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