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Research Article

Nutritional Habits of Physicians Working in Family Health Centers: A Case from Turkey

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Abstract

This study was carried out on 211 physicians working in family health centers in Denizli in order to determine the nutritional habits of these physicians. The target population of the research consisted of all physicians (246 people) working in the primary health care in Denizli city center. No sample selection was conducted since it was desired to reach the entire population; but 85.7% (211 people) of the physicians were able to participate in the research. Research Data were collected from 28 Family Health Centers (FHCs) located in Denizli city center. 33.6% of the physicians included in the study were female and 66.4% were male. 78.7% of the participants in the study were married and 21.3% were single. The mean age of the physicians was 37.0 ± 9.24 years. As a result of the study, it was determined that 53.1% of the physicians were in the overweight and obese group. 30.8% of the physicians included in the study stated that they slept 6 or less hours a day. 28.9% of the physicians stated that they smoked, 40.3% of the physicians stated that they did not exercise at all, and 41.0% of the physicians stated that they exercised irregularly. More than half of the physicians (52.1%) stated that they did not have an adequate and balanced diet, 69.2% of the physicians stated that they did not receive training on nutrition, and 9% of the physicians stated that they did not remember whether they had received any training.

Keywords: Physician; Nutrition; Eating Habits

Introduction

Nutrition is the use of nutrients for the continuation of life and the protection of health. Nutrition is not just about filling a person's fill. Adequate and balanced nutrition is necessary for the growth and development of human beings from birth and for the continuation of life in a healthy way [1-3]. Nutrition is one of the most important factors in protecting human health and maintaining a quality life [4]. A healthy lifestyle is defined as protecting and improving the health of all individuals throughout life, increasing the quality of life and adopting healthy lifestyles (adoption of healthy eating and physical activity habits, prevention of smoking habits), minimizing nutritional problems (protein-energy deficiency, iron deficiency anemia, iodine deficiency diseases, rickets, dental caries, obesity, etc.) that impair the quality of life, improving the lifestyle for the prevention and treatment of diet-related chronic diseases (coronary heart diseases, hypertension, some types of cancer, diabetes, osteoporosis, etc.), and the improvement and development of environmental conditions [5,6].

Adequate and balanced nutrition is possible with the right eating habits [7]. Nutrition habits are acquired in the early stages of life and form the basis of health in every period of life. Every society has its own unique eating and drinking culture. Situations such as socio-economic status, cultural and educational activities, religious beliefs, geographical location, traditions and customs of societies are factors in the formation of nutrition culture [8]. The number of meals, food consumption between meals, the number of skipping meals and the reasons for skipping meals, and the psychological conditions affecting eating can change the nutritional habits of individuals [9].

Nutritional habits are generally formed in childhood due to the influence of the environment and family. The habits gained in this

period continue in the later years and it becomes difficult to change the wrong eating habits with the right ones in the following years. Wrong eating habits negatively affect health and quality of life.

Medical doctors are a busy professional group. Physicians are responsible for the protection of health, but they also have to protect their own health. Physicians are a professional group that is a role model in the society in terms of health. For this reason, it is aimed to investigate the nutritional habits of physicians in this study.

Literature Review

Researchers conducted a study on "deficiency in the training of physicians about nutrition". In the study, it was stated that cardiovascular diseases increased by 41% in the period from 1990 to 2013. As a result of economic developments, urbanization and mass marketing, traditional eating habits have been replaced by a diet containing highly processed foods, intense sugary drinks, animal-based foods and less fruit and vegetables. As a result, it was stated that the increase in cardiovascular diseases was caused by malnutrition. It is understood that cardiovascular disease rates will decrease with the elimination of the lack of knowledge about nutrition and its implementation [10].

In the research conducted by researchers to examine the knowledge level of medical doctors about nutrition, a survey study was conducted on 300 doctors, 168 of whom were males and 132 were females. According to the results of the study, 82.34% of the doctors had moderate nutritional knowledge, while the rate of doctors with insufficient nutrition knowledge was 12.33%. The rate of doctors with good nutritional knowledge was quite low (%5.33). In the study, it was emphasized that it is necessary to carry out studies that will increase the nutritional knowledge level of all individuals [11].

Researchers conducted a study to determine interns' attitudes towards nutrition and their level of diet therapy knowledge. In the study, a survey was conducted on 82 interns, 42 of whom were females and 40 were males, who were in the last year of medical school. In the study, the rate of interns who answered the knowledge level test about nutrition correctly was 48.6%. As a result of the study, the knowledge levels of the physician candidates about general nutrition and diet therapy were not found sufficient. While emphasizing the importance of general nutrition and diet training in medical faculties, it is also thought that dietitians should be used in these trainings [12].

Two researchers carried out a study to determine the nutritional knowledge levels of 90 intern doctors who were studying in the medical faculties of three different universities and who were selected by random sampling method. Considering the research findings, it was concluded that the nutritional knowledge level of the last medical faculty students was insufficient and it was suggested that the education of both doctors and medical faculty students on nutrition should be emphasized [13].

Researchers conducted a study to examine the nutritional habits and nutritional status of students studying at Uludag University Faculty of Medicine. A total of 557 students, 298 of whom were females and 259 were males, participated in the study. As a result of the study, it was understood that most of the medical faculty students (70.9%) had a regular diet and were normal in terms of body mass indexes. In addition, it has been observed that female students eat more regularly than male students. The fact that most of the female students live with families and consume less fast food explains why they eat more regularly than male students. However, most of the students stated that they did not receive enough training on nutrition and that there was a need for training on this subject [14].

A researcher conducted a study to determine the nutritional knowledge levels of 248 doctors working in Alberta, Canada. As a result of the study, it was understood that the majority of doctors had insufficient knowledge about nutrition or had little training on this subject. These results support that physicians need more education on nutrition [15].

Researchers conducted a study on the nutritional knowledge, attitudes, and practices of physicians in Taiwan. The data reported in the study are based on the responses of 27% of 1210 doctors working in Taiwan. Study findings show that doctors in Taiwan need education about nutrition [16].

To give another example, in a study conducted with medical school students, it was determined that while 25% of the students had sufficient knowledge about nutrition, 75% of them had insufficient knowledge about nutrition. It was concluded that the majority of medical faculty students had insufficient knowledge about nutrition [11,17].

Researchers conducted a study to determine the knowledge, attitudes and competencies of 114 intern doctors about nutrition. It has been concluded that intern doctors consider nutritional counseling as a priority, but they do not have the knowledge to provide adequate nutrition education effectively [18].

Materials and Methods

This research is a cross-sectional and descriptive study.

The Target Population and Sample of the Research

The target population of the research consists of all physicians (246 people) working in the primary health care in Denizli city center in Turkey. Sample selection was not conducted for the research, and it was desired to include all the participants; however, 85.7% of the physicians (211 people) were accessed. Data were collected from 28 Family Health Centers (FHCs) located in Denizli city center.

Data collection

Physicians were visited at their workplaces by two researchers, they were informed about the purpose of the study, and questionnaires were left to those who agreed to participate in the study. The names and surnames of the physicians and the name of the Family Health Center where they work were not required to be written in the questionnaires, thus it was tried to ensure that the questions were answered impartially. The researchers, who were waiting outside the physician's room, had the physicians' questionnaire forms placed in a closed box after the answering process was completed. The questionnaire consisted of a total of 19 questions, including 6 questions questioning socio-demographic characteristics, 10 questions questioning attitudes and behaviors related to nutrition, and 3 questions questioning health status. It took about 15 minutes for the physicians to answer the questions.

Evaluation of data

SPSS version 21.0 was used for statistical analysis of the research. Calculations were determined by percentages (%) and averages; and results with $p < 0.05$ were considered to have statistical significance. Chi-square and Fisher's exact tests were used for comparisons between groups. In calculating the food consumption frequency of physicians, a scoring system was used by using the formula T = 6T1 + 5T2 + 4T3 + 2T5 + T6 [19]. In the scoring, the frequency of the foods consumed every day was multiplied by 6, the frequency of the foods consumed 3-5 times a week was multiplied by 5, the frequency of the foods consumed twice a week was multiplied by 4, the frequency of the foods consumed once a week was multiplied by 3, and the frequency of the foods consumed once in 15 days was multiplied by 2, and the frequency of infrequently consumed foods was multiplied by 1. These data were then collected and total scores were found for each food. In order to compare foods in terms of consumption frequency, it was calculated how many percentage points the total points obtained for each food constituted in case the foods were consumed every day.

Ethics of research

Permission was obtained from Pamukkale University Faculty of Medicine Research Ethics Committee. Before filling out the questionnaire forms, the purpose of the research was explained to the physicians and their voluntary participation was ensured.

Strengths of the research

Accessing 85.7% (211 people) of physicians working in primary health care constitutes the strength of the research.

Some concepts included in the research

In Turkey, family physicians working in primary care and at least one midwife or nurse working under them provide health services to 2500-4000 people registered with them. Family physicians are obliged to consider the persons registered to them as a whole and to provide preventive, therapeutic and rehabilitative health services for the individual in a team approach. On the other hand, secondary and tertiary healthcare services also provide patients with the opportunity to apply for the first time. The aim of the study is to investigate the nutritional habits of physicians working in primary health care and some factors that may be related to this issue.

Results and Discussion

General information on physicians

Some demographic information about the physicians included in the study is given in this section.

Gender	Number	%
Female	71	33,6
Male	140	66,4
Total	211	100,0
Age group	Number	%
≤37	103	48,8
≥38	108	51,2
Total	211	100,0
Marital Status	Number	%
Married	166	78,7
Single	45	21,3
Total	211	100,0

Table 1: General information about physicians.

Some demographic information about physicians is given in table 1. 66.4% of the physicians included in the study were male and 33.6% were female. The ages of the physicians ranged from 25 to 64. The mean age of physicians was 37.0 ± 9.24 years, and the ratio of physicians in the 38 and older age group was 51.2%. This rate decreased to 48.8% in physicians in the 37 and younger age group. 78.7% of the physicians were married and 21.3% of them were single.

Total number of people in the house	Number	%
1	33	15,6
2	30	14,2
3	51	24,2
4	82	38,9
5+	15	1,8
Total	211	100,0

Table 2: Distribution of physicians according to the number of individuals they live with.

Table 2 shows the distribution of physicians according to the number of individuals they live with in the same house. According to table 2, 4 individuals living in the same house have the highest rate with 38.9%, followed by 3 individuals with 24.2%. The rate of those living alone at home was 15.6% and the rate of those living with two people was 14.2%. The rate of those with 5 or more individuals at home was only 1.8%. These results show that the majority of individuals included in the study have a nuclear family structure or live alone.

Information on the health conditions of the doctors

Body mass indexes of physicians

Height and weight measurements of physicians were made, and the data obtained were evaluated.

	Body mass index										
	Weak		At normal weight		Slightly overweight		Overweight		Total		
	S	%	S	%	S	%	S	%	S	%	
Female	3	4,2	53	74,6	14	19,7	1	1,4	71	100,0	Fisher's Exact: 49,659 p ≤ 0,01
Male	0	0,0	43	30,7	70	50,0	27	19,3	140	100,0	
Total	3	1,4	96	45,5	84	39,8	28	13,3	211	100,0	
Married	1	0,6	65	39,2	75	45,2	25	15,1	166	100,0	Fisher's Exact:17,525 p ≤ 0,01
Single	2	4,4	31	68,9	9	20,0	3	6,7	45	100,0	
Total	3	1,4	96	45,5	84	39,8	28	13,3	211	100,0	
≤ 37	2	1,9	60	58,3	33	32,0	8	7,8	103	100,0	Fisher's Exact:15,278 p ≤ 0,01
≥ 38	1	0,9	36	33,3	51	47,2	20	18,5	108	100,0	
Total	3	1,4	96	45,5	84	39,8	28	13,3	211	100,0	

Table 3: Distribution of physicians' body mass indexes according to explanatory variables.

Table 3 shows the distribution of body mass indexes of physicians according to explanatory variables. When table 3 is analyzed over the total number, it is seen that 45.5% of the physicians have normal body weight. This rate is followed by slightly overweight people with 39.9%. The rate of those who are overweight is 13.3%, and those who are thin are at a very low rate. (1,4%). When table 3 is analyzed considering the gender of the physicians included in the study, it is seen that women with normal weight have the highest rate with 74.6%. This rate decreases to 30.7% in men, and the highest rate in men is 50.0% in those who are slightly overweight. This difference was also found to be statistically significant (Fisher's Exact: 49,659 p ≤ 0,01). This result shows that more than half of the women are of normal weight and half of the men are slightly overweight. The rate of those who are slightly overweight and overweight is higher in men than in women. This shows that women pay more attention to their weight. When the distribution of body mass indexes of physicians according to their marital status was examined, it was determined that the highest rate was 68.9% in singles with normal weight. It was determined that this rate decreased to 39.2% in married people, and this difference was found to be statistically significant (Fisher's Exact:17,525 p ≤ 0,01). It has been determined that single individuals pay more attention to their weight compared to married ones.

Chronic diseases		
Diseases	**Number**	**%**
Diabetes	24	39,3
Hypertension	16	25,0
Cardiovascular disease	10	12,5
Cancer	6	10,7
Total	56	100,0

Table 4: Distribution of chronic diseases seen in physicians.

Table 4 shows the distribution of chronic diseases seen in physicians who participated in the study. According to table 4, the highest rate among diseases is diabetes with 39.3%. This rate is followed by hypertension with 25.0%, cardiovascular diseases with 12.5% and cancer with 10.7%. Diabetes ranks first among chronic diseases.

	The state of having a chronic disease						
	Participants without chronic disease		Participants with chronic disease		Total		
	Number	%	Number	%	Number	%	
Female	55	77,5	16	22,5	71	100,0	x^2:0,034 DF:1 P ≥ 0,05
Male	110	78,6	30	21,4	140	100,0	
Total	165	78,2	46	21,8	211	100,0	
Married	127	76,5	39	23,5	166	100,0	x^2:1,309 DF:1 P ≥ 0,05
Single	38	84,4	7	15,6	45	100,0	
Total	165	78,2	46	21,8	211	100,0	
≤ 37	86	83,5	17	16,5	103	100,0	x^2:3,311 DF:1 P ≥ 0,05
≥ 38	79	73,1	29	26,9	108	100,0	
Total	165	78,2	46	21,8	211	100,0	

Table 5: Distribution of chronic diseases seen in physicians according to explanatory variables.

Physicians were asked whether they had any chronic diseases and the data obtained are shown in table 5. According to table 5, it was determined that 78.2% of the physicians did not have any chronic disease. The rate of physicians with chronic diseases was found to be 21.8%. When the genders of the physicians were examined, it was seen that 78.6% of men and 77.5% of women did not have a chronic disease according to table 5. Considering the marital status variable and the presence of chronic diseases of the physicians, it was seen that the rate of those who did not have the disease was 84.4% in singles, and this rate decreased to 76.5% in married individuals. When the presence of chronic diseases of the individuals according to the age variable was examined, it was observed that 83.5% of those under the age of 37 did not have any disease. It was observed that this rate decreased to 73.1% in individuals aged 38 and over. These results show that the proportion of people with chronic diseases was higher in women than in men, in married people than in singles, and in the 38 and older age group than in the 37 and younger age group; however, this difference was not found to be statistically significant. When the distribution of chronic diseases according to the gender of the physicians was examined, it was determined that 46.7% of the women with chronic diseases had diabetes, 26.7% of them had hypertension, and 26.7% of them had cancer. Of the men with chronic diseases, 50% of them had diabetes, 33.3% of them had hypertension, 10% of them had cancer, and 6.7% of them had cardiovascular disease. When the marital status variable and the chronic disease status of the physicians were examined, 55.8% of the married and chronic disease patients were diabetic, 30.2% were hypertensive. 9.3% of the married physicians had cancer and 4.6% of them had cardiovascular disease. 71.4% of the singles with chronic diseases had diabetes and 28.6% of them had cancer. Considering the age variable, 52.6% of the physicians with chronic diseases in the 37 and younger age group had hypertension, 42.0% had diabetes, and 5.3% had cancer. Of the individuals aged 38 and over, 62.0% had diabetes, 27.6% had hypertension, 6.9% had cancer, and 3.4% had cardiovascular disease.

Table 6 shows the distribution of dieting status of physicians according to explanatory variables. Considering the gender variable, it is seen that 83.1% of women and 74.3% of men do not diet. This difference was also found to be statistically significant. According to the marital status variable, the rate of non-diet (82.2%) singles was higher than the married (75.9%), and this difference was also statistically significant. When the dieting status of physicians is examined by considering their age, the rate of those who do not diet is 86.4% in the 37 and younger age group, while it drops to 68.8% in the 38 and older age group. This difference was also found to be statistically significant.

When table 6 is examined considering the gender status of the physicians, it was seen that 15.5% of the women were on a weight-loss diet and 1.4% on a hypertension diet. On the other hand, 14.3% of the men were on a diet for weight loss, 3.6% for diabetes, and 0.7% for cardiovascular disease. Considering the marital status variable, it was found that 15.1% of the married were on a weight-loss diet, 5.4% of them on a hypertension diet, 3.0% of them were on a diabetes diet, and 0.6% of them were on a cardiovascular disease diet.

13.3% of singles were on weight loss diet and 4.4% on hypertension diet. Among those who were 37 years old and younger, 85% of the dieters were on a weight loss diet, 14.2% of them were on a diabetes diet, and 0.8% of them were on a hypertension diet.

	Physicians who do not diet		Dieting Physicians		Total		
	Number	%	Number	%	Number	%	
Female	59	83,1	12	16,9	71	100,0	x^2;2,082 DF:1 P ≥ 0,05
Male	104	74,3	36	25,7	140	100,0	
Total	163	77,3	48	22,7	211	100,0	
Married	126	75,9	40	24,1	166	100,0	x^2;0,804 DF:1 P ≤ 0,05
Single	37	82,2	8	17,8	45	100,0	
Total	163	77,3	48	22,7	211	100,0	
≤ 37	89	86,4	14	13,6	103	100,0	x^2;9,6011 DF:1 P ≤ 0,05
≥ 38	74	68,5	34	31.4	108	100,0	
Total	163	77,3	48	22,7	211	100,0	

Table 6: Distribution of physicians' diet status according to explanatory variables.

58.8% of individuals in the 38 and older age group were on a weight loss diet, 29.4% of them were on a hypertension diet, 8.8% of them were on a diabetes diet and 2.9% of them were on a cardiovascular disease diet. Weight loss diet ranks first among the diets made by physicians (67.3%). The rate of those on a hypertension diet is 24.5%, while the rate of those on a diabetes diet is only 8.2%.

The number of hours the physicians slept per day was determined and the data obtained are shown in table 4. As seen in table 4, 36.0% of physicians sleep 7 hours a day. This rate is followed by those who sleep 8 hours a day with 28.0% and those who sleep for 6 hours a day with 25.1%. The rate of those who sleep 5 or less hours a day is 5.7%, and the rate of those who sleep 9 or more hours is 5.2%. It is said that the ideal daily sleep duration for adults aged 18-64 is 7-9 hours and this time should not be less than 5 hours, but not more than 9 hours [20-22].

	Number of meals eaten per day								
	≤ 2		3		4 ≤		Total		
	S	%	S	%	S	%	S	%	
Female	10	14,1	40	56,3	21	29,6	71	100,0	x^2:21,223 df: 2 p ≤ 0,01
Male	20	14,3	111	79,3	9	6,4	140	100,0	
Total	30	14,2	151	71,6	30	14,2	211	100,0	
Married	24	14,5	123	74,1	19	11,4	166	100,0	x^2:4,936 df: 2 p ≥ 0,05
Single	6	13,3	28	62,2	11	24,4	45	100,0	
Total	30	14,2	151	71,6	30	14,2	211	100,0	
≤ 37	13	12,6	69	67,0	21	20,4	103	100,0	x^2:6,3383 df: 2 p ≤ 0,05
≥ 38	17	15,7	82	75,9	9	8,3	108	100,0	
Total	30	14,2	151	71,6	30	14,2	211	100,0	

Table 8: Distribution of the number of meals eaten per day by explanatory variables.

Sleep duration	Number	%
≤ 5	12	5,7
6,00	53	25,1
7,00	76	36,0
8,00	59	28,0
≥ 9,00	11	5,2
Total	211	100,0

Table 7: Distribution of physicians by daily sleep duration.

Physicians were asked how many meals a day they ate and the data obtained are shown in table 8. When table 8 is analyzed over the total number, it was observed that 14.2% of the physicians skipped meals, that is, they consumed 2 or less meals. It was seen that the rate of physicians who consumed 3 meals a day was 71.6%. It was determined that the rate of those who ate 4 or more meals was 14.2%. When the number of meals eaten daily according to the gender of the physicians was examined, the rate of those who ate 3 meals a day in men was 79.3%, while this rate decreased to 56.3% in women. However, while the rate of women who ate 4 or more meals was 29.6%, this rate was 6.4% for men. This difference was also found to be statistically significant. When the effect of marital status on the number of meals was examined, it was seen that 74.1% of married people and 62.2% of single people ate 3 meals a day. While the rate of those who ate 4 or more meals a day was 24.4% in singles, this rate decreased to 11.4% in married people; however, this difference was not found to be statistically significant.

Considering the age groups of the physicians, it was observed that the highest rate, with 75.9%, was in the physicians aged 38 and above, who ate three meals a day. It was observed that this rate decreased to 67.0% in individuals aged 37 and below. The rate of those who ate 4 or more meals a day was higher in the 37 and

younger age group (20.4%) compared to the individuals in the 38 and older age group (8.3%). This difference was found to be statistically significant. Among the skipped meals, the first place was dinner with 36.5%, lunch with 33.8% and breakfast with 29.7%. The frequency of skipping dinner was quite high at 71.42%.

Physicians who skipped meals were asked how often they skipped meals, and the data obtained are shown in table 9. According to table 9, it was seen that the highest rate was the evening meal skipped every day (71.4%), the rate of those who skipped lunch and breakfast every day was 17.9% and 10.7%, respectively.

Skipped meals	Everyday		Once every two days		Twice a week		Once a week		Rarely		Total	
	S	%	S	%	S	%	S	%	S	%	S	%
Breakfast	3	10,7	8	53,3	9	60,0	1	11,1	1	14,3	22	29,7
Lunch	5	17,9	6	40,0	6	40,0	6	66,6	2	28,6	25	33,8
Dinner	20	71,4	1	6,7	-	-	2	22,2	4	57,1	27	36,5
Total	28	100,0	15	100,0	15	100,0	9	100,0	7	100,0	74	100,0

Table 9: Distribution of skipped meals.

Reason for skipping meals	S	%
Lack of time	21	70,0
Anorexia	2	6,7
Losing weight	3	10,0
Lack of suitable places around	3	10.0
Forgetting to eat	1	3,3
Total	30	100,0

Table 10: Distribution of physicians' reasons for skipping meals.

Physicians who skipped meals were asked about the reasons for skipping meals. 70% of the physicians stated that they skipped meals due to lack of time. 10% of the physicians reported that they skipped meals because there was no suitable place in the vicinity. 10% of physicians reported that they skipped meals in order not to gain weight and lose weight. 6.7% of the physicians reported that they skipped meals due to lack of appetite and 3.3% of them skipped meals because they forgot to eat.

Food	Number	%
Biscuit	6	1,8
Cracker	49	14,8
Chocolate	36	10,9
Cake, pastry	52	15,8
Desserts	43	13,0
Yogurt	22	6,7
Fruit	42	12,7
Nuts	80	24,2
Total	330	100,0

Table 11: Foods consumed between meals.

Table 11 shows the distribution of foods consumed by physicians between meals. According to table 11, it is seen that the most consumed food between meals is dried nuts with a rate of 24.2%. This rate is followed by cakes with 15.8%, pastries and crackers with 14.8%. Dessert, fruit, chocolate, yoghurt and biscuit consumption rates are 13.0, 12.7%, 10.9%, 6.7%, and 1.8%, respectively. This result reveals that physicians consume healthy foods between meals.

Drinks	Number	%
Tea	65	14,9
Herbal teas	118	27,1
Milk	33	7,6
Coke	21	4,8
Soda	28	6,4
Mineral water	16	3,7
Instant coffee	34	7,8
Turkish coffee	60	13,8
Fresh squeezed fruit juice	48	11,0
Instant fruit juice	12	2,8
Total	435	100,0

Table 12: Drinks consumed between meals.

Herbal teas take the first place with 27.1% among the beverages consumed by physicians between meals. This rate is followed by black tea with 14.9% and Turkish Coffee with 13.8%. Consumption rate of fresh squeezed fruit juice is 11.0%. The consumption rates of Nescafe, milk, soda, cola, mineral water and instant fruit juices are 7.8%, 7.6%, 6.4%, 4.8%, 3.7%, 2.8%, respectively.

	Smoking Status								
	Yes		No		I quit smoking		Total		
	Number	%	Number	%	Number	%	Number	%	
Female	17	23,9	52	73,2	2	2,8	71	100,0	X2:8,271, df:2 p ≥ 0,05
Male	44	31,4	78	55,7	18	12,9	140	100,0	
Total	61	28,9	130	61,6	20	9,5	211	100,0	
Married	49	29,5	97	58,4	20	12,0	166	100,0	X2:6,797, df:2 p ≥ 0,05
Single	12	26,7	33	73,3	0	0,0	45	100,0	
Total	61	28,9	130	61,6	20	9,5	211	100,0	
≤ 37	25	24,3	72	69,9	6	5,8	103	100,0	X2: 6,577 df:1 p ≥ 0,05
≥ 38	36	33,3	58	53,7	14	13,0	108	100,0	
Total	61	28,9	130	61,6	20	9,5	211	100,0	

Table 13: Distribution of physicians by smoking status.

Physicians were asked whether they smoke and the data obtained are shown in table 13. According to table 13, it is seen that 61.6% of the physicians have never smoked. The rate of those who used it before and quit is 9.5%. A substantial number of physicians (28.9%) stated that they still smoke.

Physicians were asked about their alcohol consumption and the data obtained are shown in table 14. When table 14 is analyzed over the total number, it is seen that 61.6% of the physicians do not drink alcohol at all. When the alcohol consumption status of physicians is examined according to the gender variable, women who have never used alcohol have the highest rate with 87.3%, and this rate drops to 71.4% for men. The rate of alcohol consumption in men is slightly higher than in women. When table 14 is analyzed considering the marital status variable, it is seen that 77.1% of married people do not drink alcohol, while this rate drops to 75.5% among married people. When table 14 is analyzed considering the age variable, it was determined that 83.5% of the individuals in the 37 and younger age group, and 70.4% of the individuals in the 38 and older age group do not drink alcohol.

Table 15 shows the distribution of physicians according to their exercising status. 40.8% of the physicians stated that they did not exercise. 43.6% of physicians do sports irregularly. The rate of those who do sports for 20 minutes or longer at least 3 times a week is 16.1%.

	Alcohol consumption						
	Yes		No		Total		
	S	%	S	%	S	%	
Female	9	12,7	62	87,3	71	100,0	X2: 6,676 df:1 p ≥ 0,05
Male	40	28,6	100	71,4	140	100,0	
Total	49	23,2	162	76,8	211	100,0	
Married	38	22,9	128	77,1	166	100,0	X2:6,797 df:2 p ≥ 0,05
Single	11	24,4	34	75,5	45	100,0	
Total	49	23,2	162	76,8	211	100,0	
≤ 37	17	16,5	86	83,5	103	100,0	X2: 0,048 df:1 p ≥ 0,05
≥ 38	32	29,6	76	70,4	108	100,0	
Total	61	28,9	130	61,6	211	100,0	

Table 14: Distribution of physicians by alcohol consumption.

	Exercising Status								
	No, I never exercise		Yes, but I don't exercise regularly.		Yes, I exercise for 20 minutes or more at least 3 times a week.		Total		
	S	%	S	%	S	%	S	%	
Female	28	39,4	35	49,3	8	11,3			X2:2,374 DF:2 P ≥ 0,05
Male	57	40,7	57	40,7	26	18,6			
Total	85	40,3	92	43,6	34	16,1			
Married	23	44,0	68	41,0	25	15,1			4,411 DF.2 P ≥ 0,05
Single	12	26,7	24	53.3	9	20,0			
Total	85	40,3	92	43,6	34	16,1	85		
≤ 37	35	34,0	52	50,5	16	15,5			X2:4,214 DF:2 P ≥ 0,05
≥ 38	50	46,3	40	37,0	18	16,7			
Total	85		92		34		211		

Table 15: Distribution of physicians' exercising status according to explanatory variables.

	Adequate and Balanced Nutrition						
	Yes		No		Total		
	Number	%	Number	%	Number	%	
Female	27	38,0	44	62,0	71	100,0	x2:4,151, df.1 p ≤ 0,05
Male	74	52,9	66	47,1	140	100,0	
Total	101	47,9	110	52,1	211		
Married	82	49,4	84	50,6	166		x2: 0,730, df.1 p ≥ 0,05
Single	19	42,2	26	57,8	45		
Total	101	47,9	110	52,1	211		
≤ 37	38	36,9	65	63,1	103		x2:9,711 df.1 p ≤ 0,01
≥ 38	63	58,3	45	41,7	108		
Total	101	47,9	110	52,1	211		

Table 16: Distribution of physicians according to their adequate and balanced nutrition status.

Table 16 shows the distribution of physicians according to their adequate and balanced nutritional status. 52.1% of the physicians reported that they did not have an adequate and balanced diet. When table 16 is examined according to the gender of the physicians, 62.0% of the women reported that they do not have an adequate and balanced diet. This rate decreases to 47.1% in men. 52.9% of the men stated that they had an adequate and balanced diet. Considering the marital status of the physicians, when the adequate and balanced nutritional status is examined, the rate of those who state that they do not have adequate and balanced nutrition is 57.8% for singles, while this rate drops to 50.6% for married people. In this case, the rate of married people who stated that they had a sufficient and balanced diet is higher than that of singles. When the adequate and balanced nutrition status of the physicians according to their age was examined, the rate of those in the 37 and younger age group who stated that they did not have adequate and balanced nutrition is 63.1%. This rate decreases to 41.7% in individuals aged 38 and over. This difference was also found to be statistically significant. According to these results, it is seen that as the age progresses, physicians pay attention to a balanced and adequate nutrition (x^2:9,711 df.1 p ≤ 0,01).

Table 17 shows the distribution of physicians according to their nutrition training status. 69.2% of the physicians stated that they had never received any training on nutrition. The rate of those who received training on nutrition is only 21.8%.

Status of receiving a Training on Nutrition	Number	%
Yes	46	21,8
No	146	69,2
I do not remember	19	9,0
Total	211	100,0

Table 17: Distribution of physicians according to whether they received training on nutrition or not.

Food	Never	Everyday	3-5 times a week	Twice a week	Once a week	Once in fifteen days	Rarely	Total	Consumption Score	Percentage Consumption Score
Red meat	4	16	70	77	30	7	7	211	865	51,9
Chicken	3	3	35	85	55	22	8	211	750	45,0
Fish	4	-	11	21	70	54	51	211	508	30,4
Soujouk	29	-	19	21	54	20	68	211	409	24,5
Salami	102		4	2	22	5	76	211	180	10,8
Sausage	100	2	4	2	24	4	75	211	195	11,7
Bacon	102	1	6	2	2	6	91	211	153	9,2
Egg	2	8	85	65	37	10	9	211	873	52,4
Hazelnut	11	5	33	31	45	18	68	211	558	33,5
Peanut	14	6	15	30	40	34	72	211	491	29,5
Walnut	7	12	29	35	36	28	64	211	585	35,1
Other nuts	18	5	31	47	36	14	60	211	569	34,1
Milk	36	36	19	33	33	6	48	211	593	35,6
Yogurt	-	74	84	36	11	-	6	211	1000	60,0
Cheese	2	104/624	74	25	4	-	2	211	1108	66,5
Buttermilk	5	29	64	46	35	8	24	211	823	49,4
Green leafy vegetables	-	77	81	42	5	2	3	211	1061	63,7
Potatoes	3	8	48	69	51	10	22	211	759	45,5
Other vegetables	-	29	87	65	23	2	5	211	947	56,7
Fruit	4	98	64	35	5	-	5	211	1068	64,1
White bread	16	87	16	16	4	1	22		702	42,1
Whole meal bread	40	40	30	31	9	5	56	211	607	36,4
Rice	2	4	44	82	47	10	22	211	755	45,3
Bulgur	4	2	24	45	64	30	37	211	556	33,4
Pasta	6	1	67	51	64	10	12	211	769	46,1
Cake, pastry, cookies	24	12	36	39	50	13	37	211	621	37,3
Pastry, donut	9	6	32	40	50	24	50	211	604	36,2
Turkish bagels	8	9	42	45	48	24	35	211	671	40,3
Dumplings Sweet	13	1	10	36	48	35	68	211	482	28,9
Milky desserts	13	2	11	32	56	33	64	211	493	29,6
Fruit desserts	15	2	6	30	42	32	84	211	436	26,2

Grape molasses	52	5	5	15	26	22	86	211	323	19,4
Butter	18	24	33	45	36	8	47	211	660	39,6
Olive oil	6	91	57	26	19	2	10	211	1006	60,36
Dry beans	-	5	38	69	59	20	20	211	733	44,0
Chocolate	15	24	30	40	42	12	48	211	652	39,1
Candy	34	57	22	21	19	10	48	211	661	40,0
Citrus	3	19	54	46	33	20	46	211	753	45,1
Dried fruits	20	9	16	33	29	37	67	211	494	29,6
Biscuits, crackers	22	9	35	37	37	13	58	211	572	34,3
Giblets	42	4	9	6	25	22	103	211	315	18,9

Table 18: Distribution of physicians according to their food consumption frequency.

Physicians were asked about the frequency of consumption of some foods and the data obtained are shown in table 18. According to table 18, the food with the highest percentage consumption score is cheese (66,5%). This is followed by fruit with 64.1 and green leafy vegetables with 63.7. Bacon has the lowest consumption score with 9.2. This rate is followed by salami with 10.8 and sausage with 11.7.

Conclusion and Recommendations

As a result of the research, it has been determined that the majority of the physicians who are expected to set an example in the society are not at the ideal weight. It was determined that the rate of those in the slightly obese and obese group was 53.1%, which indicates that the nutritional habits of the physicians are not very positive. 30.8% of the physicians included in the study stated that they slept 6 hours or less a day. Sleeping between 7-8 hours a day is very important in maintaining health. The rate of those who skipped meals was 14.2%. The fact that the meal that is usually skipped is the evening meal and that the highest rate among the reasons for skipping meals is untimely may also be due to the high workload of the physicians. 28.9% of physicians smoke. The health hazards of smoking are known. When it comes to exercising, 40.3% of the physicians stated that they did not exercise at all, and 41.0% stated that they exercised irregularly. It is quite clear that the habit of doing sports is as necessary as positive eating habits in maintaining health. The fact that more than half of the physicians (52.1%) state that they do not have an adequate and balanced diet also explains that they do not have appropriate dietary habits. 69.2% of the physicians stated that they did not receive training on nutrition and 9% of the physicians did not remember whether they received any training.

26.5% of the physicians stated that they do not consume any food between meals. It is seen that the most consumed food by physicians who consume snacks is dried nuts with a rate of 24.2%. Nuts are healthy foods and have positive contributions to health if consumed as much as necessary. 5.7% of the physicians stated that they do not consume any beverages between meals. Herbal teas take the first place among consumed beverages with 27.1%. Herbal teas have beneficial effects on health. When the food consumption frequency of the physicians included in the study was examined, it was determined that the food with the highest percentage consumption score was cheese (66.5%). It was determined that cheese was followed by fruit with 64.1% and green leafy vegetables with 63.7%. Bacon had the lowest consumption score with 9.2%. This rate was followed by salami with 10.8% and sausage with 11.7%. Considering the frequency of food consumption, it can be stated that physicians choose healthy foods.

It is very important for physicians to have good eating habits in order to be a model for the society in terms of their nutritional habits and health. Having the right eating habits is one of the most important conditions for maintaining health. In addition to good eating habits, regular exercise, adequate sleep and staying away from harmful habits such as tobacco and alcohol are very important. It is an issue that should be taken into account that most of the physicians included in the study did not receive nutrition education and stated that they did not believe that they had an adequate and balanced diet. There is no study on the nutritional habits of physicians in our country. This study will raise awareness in this respect and will shed light on future studies.

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