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Obesity Management of Family Physicians in Van City; Attitudes, Approaches and Practices

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Abstract

Introduction: Family physicians have an important role in the diagnosis and treatment of obesity, as most obese patients are first seen by the family physician. The aim of our study was to evaluate the obesity management of family physicians working in family health centers in Van province.

Materials and Methods: This cross-sectional study was conducted between 04.05.2021-30.07.2021 with 126 volunteer family physicians working in family health centers representing Van province. The questionnaire including sociodemographic characteristics, obesity knowledge and self-efficacy questions were completed by the physicians themselves.

Results: Only 13 (10.3%) of the physicians knew the number of obese patients registered in their units. Although 97 (77%) of the physicians stated that the family physician was responsible for obesity management, 54 (42.9%) stated they calculated the body mass index of their patients "sometimes" and 48 (38.1%) "rarely". Seventy-one (56.3%) of the physicians thought family physicians had a great role in the prevention of obesity, while 63 (50%) argued the best role of the family physicians in obesity management isn't treating these patients but referring them to the relevant fields. Among physicians who calculated BMI "often", 66.7% indicated that they were professionally prepared to treat overweight patients and didn't consider themselves unsuccessful in getting their patients to lose weight.

Conclusion: Our study shows that although obesity is included in chronic disease follow-up in primary care, it has not been put into practice. It is clear that there is a need to train family physicians on obesity management and to help them gain self-efficacy.

Key words: Obesity; physicians; primary health care

Introduction

Obesity is derived from the Latin word obesus, which means "one who eats too much". According to the WHO definition; obesity is defined as excessive fat accumulation in the body at a level that impairs health. The definition and grading of obesity is based on body mass index (BMI=Weight [kg] / Height [m²]). According to this measurement, a BMI value above 25 kg/m^2 is defined as overweight and above 30 kg/m² as obese. Obesity is a complex and multifactorial disease that adversely affects health and it is currently the second leading cause of preventable death after smoking. Obesity leads to many diseases and increases health expenditures (1). Factors causing obesity may include socioeconomic, genetic, environmental, physical, behavioral and underlying diseases (2). Obesity has reached epidemic proportions globally, with at least 2.8 million people dying each year as a result of being overweight or obese. Once associated with high-income countries, obesity is now also prevalent lowand middle-income in countries (3). According to estimates by the Non

Communicable Diseases Risk Factor Collaboration (NCD-RisC) Group, the agestandardized prevalence of obesity in the adult (18 years and older) population worldwide tripled in men and doubled in women between 1975 and 2014. WHO estimates that there were 1.9 billion overweight and 650 million obese adults worldwide in 2016 (4). Childhood obesity is an important cause of adult obesity. Metabolic and cardiovascular risk factors lead to a high risk of morbidity and mortality as they progress from childhood to adult life (5). According to studies, 155 million, or one in 10 school-going children, are obese. The prevalence of childhood obesity has increased significantly over the past few years and has become a serious public health problem. Since childhood obesity is extremely difficult to treat once it occurs, it would be more appropriate to prevent childhood obesity before it progresses to adult obesity through various forms of intervention (6). Although various policies have been developed for the prevention of obesity, it is controversial how much of these practices are put

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into effect or how much of the society can access and implement these practices. Since people are under the control of primary care physicians in every year of their lives from the day they are born, especially with their growth curves, disease risks and screening tests during and after adolescence, family physicians working in this step have a great duty in the detection and prevention of obesity. Since primary care is an institution where the patient has easy access and the physician knows the patient, the patient-physician relationship is established more easily and the patient can come to the controls without interruption. Therefore, the BMI of each patient who applies to primary care should be calculated and measures should be taken before progression to obesity when caught in the overweight range (BMI>25 kg/m²). Family physicians should not be afraid to apply diet, exercise and behavioral therapy to obese patients and should give pharmacological treatment if necessary (7). In the review of primary care interventions for obesity by Tronieri et al. (8) in 2019, it was found that the greatest weight losses were achieved with highintensity counseling alone or in combination with obesity pharmacotherapy, and it was emphasized that primary care providers should support their patients by inviting them to discuss their weight concerns and directing the relevant individuals to appropriate interventions. The aim of our study is to evaluate the obesity management of primary care physicians and their attitudes, approaches and practices towards obese patients and to reveal where family physicians see themselves in the prevention and management of obesity.

Materials and Methods

The study was conducted in Family Health Centers (FHCs) in Van province, including its districts. It is a descriptive and cross-sectional study. The study was conducted with physicians serving in FHCs between 04.05.2021-30.07.2021. As a sample, our study aimed to reach all family physicians working in FHCs. We were informed by the Van Provincial Health Directorate that 250 family physicians were actively working in FHCs in Van province. Our study aimed to reach all of 250 family physicians. However, 210 family physicians were reached due to physicians on medical reports and annual leave and 126 of these family physicians voluntarily agreed to participate in our study. The questionnaire was completed by the physicians themselves. The content of the questionnaire included 17 questions that were developed by us as a result of a review of the literature which relevant evaluated the

sociodemographic characteristics of physicians, their general knowledge about obesity, daily practices in obesity management, and thoughts on the diagnosis and treatment of obesity. The inclusion criteria for our study were that the physicians volunteered to participate in the study and that the physicians were actively working in the FHCs. Exclusion criteria for our study were that physicians were not volunteered to participate in the study and not working actively in the FHCs. Ethical consent: In our study, written informed consent was obtained from all patients who participated in our study in accordance with the Declaration of Helsinki. Ethics Committee Permission was obtained from the Van Yüzüncü Yıl University Non-Interventional Clinical Research Ethics Committee with the board decision dated 14.05.2021 and numbered 2021/06-10. In addition, The Directorate of Health Services of Van Provincial Directorate of Health was informed and the necessary permission was obtained with the letter of the Provincial Directorate of Health numbered E-73040253-129 in order to conduct the study in FHCs.

Statistical analysis: While descriptive statistics for continuous variables are expressed as mean, minimum and maximum values, descriptive statistics for categorical variables are expressed as number and percentage. Chi-square test was used to determine the relationships between categorical variables. The statistical significance level was taken as 5% and SPSS (ver: 20) statistical package program was used for calculations.

Results

Our study was conducted with a total of 126 family physicians. 36 (28.6%) of these were female and 90 (71.4%) were male. Of the physicians, 11 (8.7%) were family medicine specialists and 115 (91.3%)were general practitioners. The institutions where the physicians participating in our study have worked for the longest time are FHCs with a rate of 75.4% and hospitals with a rate of 24.6%. The mean age of the physicians who participated in our study was 32.2 years and the mean BMI was 25.5. The average number of years physicians have been working in FHCs from past to present was 4.12. The average population of the family health units where physicians actively worked was 3173.20. Only 10.3% of the physicians who participated in the study knew the number of patients diagnosed with obesity registered in their units (physicians who calculated the BMI of their patients and added them to their systems) and the average number of patients diagnosed with obesity registered in their units

	Never	Rarely	Sometimes	Often	Always
I calculate the BMI of my patients.	9.5	38.1	42.9	9.5	0
I discuss my calculated BMI with my	11.2	33.3	27.8	17.5	10.3
patients.					
I measure and note the waist circumference of my patients.	23	42.9	23.8	10.3	0
I question my patients about their dietary habits.	4.8	12.7	40.5	32.5	9.5
I question my patients about their physical activity habits.	3.2	19	36.5	36.5	4.8
I avoid talking about BMI/weight/obesity with my patients.	52.4	19	20.6	7.9	0
I encourage my patients with body weight in the healthy range (BMI 20-25 kg/m ²) to maintain their weight.	12.7	21.4	31.7	25.4	8.7
I recommend weight loss therapy for patients with a body weight above the healthy range (BMI >25 kg/m ²).	4	14.3	21.4	39.7	20.6
I only discuss weight control with my patients when they ask me.	27.8	29.4	32.5	10.3	0
I recommend dietary changes to my patients.	0	10.3	36.5	41.3	11.9
I recommend exercise to my patients.	0	7.9	26.2	36.5	29.4
I refer my patients to the relevant branches for treatment with drugs that will help them lose weight.	3.2	19.8	32.5	29.4	15.1
I refer my patients to a dietician when necessary.	7.9	25.4	36.5	30.2	0
I recommend bariatric surgery to my patients when necessary.	31.7	38.1	17.5	8.7	4

Table 1: Evaluation of physicians' practices related to obesity

BMI: Body Mass Index Data are presented as %.

was 24 (min:0, max 226). 35.7% of physicians had a first-degree close relative diagnosed with obesity. The physicians who participated in our study were asked about the factor(s) they thought caused obesity and six options were given. These were; fat-rich diet, insufficient physical activity, genetic stress-anxiety-depression, factors. hormonal disorders, low income-unemployment and other. While 40.9% of physicians thought that all of them cause obesity, 23.6% thought that all of them except the low income-unemployment option caused obesity. When we asked the participants who or whom was responsible for obesity management, 99.2% stated that the patient himself/herself was responsible. At the same time, 77% of the physicians stated that the family physician was responsible. However, only 11.3% of the physicians who thought that the family physician was responsible knew the number of patients diagnosed with obesity registered in their unit. Likert-type statements evaluating their practices in obesity management and their thoughts about obesity were applied to the

participants and the results are shown in Table 1 and Table 2. Among the physicians who participated in our study, 42.2% of those with obesity in their families considered obesity as an important issue in FHCs, while 63% of physicians without obesity in their families found it important. The difference between the two groups was statistically significant (p=0.020). As seen in Table 3, among physicians who "often" calculated the BMI of their patients, 66.7% reported that they were professionally prepared to treat overweight patients, while 33.3% were undecided. No one thought that they were not prepared. This relationship was statistically significant (p=0.030) As seen in Table 4, among the physicians who stated that they calculated the BMI of their patients "often", 25% thought that they were successful in helping their patients lose weight, 75% were undecided and no one thought that they were unsuccessful. This relationship was found to be statistically significant (p=0.010).

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	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Obesity is a major public health problem.	4	0	0	10.3	85.7
Obesity is an important issue at my FHC.	3.2	7.1	34.1	35.7	19.8
I often diagnose obesity in my FHC.	4	24.6	38.1	23.8	9.5
Diet / Exercise is an effective treatment for obesity.	0	0	6.3	24.6	69
Prescription drugs used in the treatment of obesity are an effective treatment for obesity.	0	8.7	40.5	39.7	11.1
There is no effective treatment for obesity.	50.8	22.2	16.7	5.6	4.8
In general, my patients are motivated to lose weight by the conversations I have.	3.2	10.3	33.3	46	7.2
I feel comfortable recommending	3.2	4.8	9.5	50.8	31.7
I avoid discussing weight loss with my patients fearing that it will disturb the "patient-physician relationship" between me and my patients.	46.1	23.8	19	4.8	6.3
I feel that I do not have enough time to discuss BMI/weight/obesity in my consultation with the patient.	11.1	16.7	31.7	23	17.5
Family physicians have a great role in the	4	4	35.7	37.3	19
The best role of the family physician in obesity management is not to treat these patients but to refer them to the relevant fields.	10.3	23	16.7	29.4	20.6
Counseling patients who need to lose weight is often professionally satisfying.	0	10.3	26.2	46.8	16.7
Professionally, I am ready to treat overweight patients (BMI 25-30 kg/m ²).	5.6	14.3	45.2	30.2	4.8
Professionally, I am ready to treat obese (BMI $>30 \text{ kg/m}^2$) patients.	8.7	20.6	43.7	19.1	7.9
I am usually successful in helping obese patients lose weight.	4	14.2	55.6	26.2	0

BMI: Body Mass Index, FHC: Family Health Center Data are presented as %.

Discussion

Our study is the first survey study to analyze the attitudes and practices of family physicians working in FHCs in Turkey on obesity management. There are many prevalence studies on obesity in Turkey. If we look at current studies, according to TUIK (Turkish Statistical Institute) 2022 data (9), the prevalence of obesity in Turkey was found to be 20.2%. The fact that this rate is high throughout Turkey emphasizes the importance of family physicians knowing the number of patients diagnosed with obesity in their

population. However our study shows the percentage of physicians who knew the number of obese patients registered in their units was only 10.3%. Very few physicians knew the number of obese patients in their population. This is a remarkable result. In a study conducted by Mattar et al. (10) in Texas in 2017, which examined the prevalence of obesity in primary care, it was found that 52% of the patients included in the study met the obesity criteria, but only 5.6% had obesity in their health records. In our study, almost all of the physicians stated that the patient himself and the

majority of them stated that the family physician was responsible for obesity management. Our finding was consistent with similar studies. For example, in a study conducted by Falvo et al. (11) in Pennsylvania in 2018 and examining the obesity management of primary care workers, all of the

Table 3: Comparison of physicians' BMI calculation and professional readiness to treat overweight patients

		Being p					
		Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Total
BMI calculation	Never	16.7	16.7	33.3	16.7	16.7	100
	Rarely	8.3	20.8	41.7	29.2	0	100
	Sometimes	1.9	11.1	53.7	29.6	3.7	100
	Often	0	0	33.3	50	16.7	100
	Total	5.6	14.3	45.2	30.2	4.8	100
				p=0.030			

BMI: Body Mass Index Chi-square test was used and data are presented as %.

Table 4: Comparison of physicians' success in BMI calculation and weight loss of obese patients

		Success ir						
		Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Total		
BMI	Never	16.7	25	25	33.3	100		
calculation	Rarely	6.2	22.9	47.9	22.9	100		
	Sometimes	0	7.4	64.8	27.8	100		
	Often	0	0	75	25	100		
	Total	4	14.3	55.6	26.2	100		
	p=0.010							

BMI: Body Mass Index Chi-square test was used and data are presented as %.

participants stated that primary care workers and almost all of the participants stated that the patient himself was responsible for obesity management. Our finding overlaps with this study. The majority of the family physicians who participated in our study answered "sometimes" and "rarely" to the statement "I calculate the BMI of my patients". No physician answered "always". This is a striking finding. In the study by Falvo et al. (11) almost all of the primary care workers stated that they "always" calculate the BMI of their patients. Our finding is not consistent with this study in the literature. This may be related to the fact that the introduction of obesity screening and follow-up in FHCs in our country is still new and the history of family medicine practices in the USA and Europe is older than in our country. While 65.8% of physicians encourage patients

with body weight in the healthy range to maintain their weight, 81.7% of physicians recommend weight loss treatment for patients with body weight above the healthy range. In a study conducted by Campbell et al. (12) in Australia in 2000, in which obesity management of general practitioners was examined, physicians reported that 87% of them agreed with the statement that patients with a body weight in the healthy range should be encouraged to maintain their weight, and 77% of them agreed with the statement that patients with a body weight above the healthy range should be offered weight loss treatment. Compared to our findings, we can say that patients with a body weight in the healthy range were less likely to be advised to maintain their weight, while overweight patients were similarly advised to lose weight. Among the physicians who

participated in our study, 40.5% of physicians agreed with the statement "I feel that I do not have enough time to discuss BMI/weight/obesity in my interview with the patient", while 31.7% were undecided. In the literature, in a study conducted by Epling et al. (13) in New York in 2011, which examined the attitudes of family physicians in obesity management, the majority of physicians said, "If my time is appropriately reimbursed, I will spend more time on weight management, I would spend it" statement. Our finding is consistent with this study. We can predict that the quality of obesity management practices will increase if physicians are provided with sufficient time and appropriate working conditions. While 56.3% of the participants thought that family physicians have a great role in the prevention of obesity, on the other hand, 50% thought that the best role of the family physician in obesity management is not to treat these patients, but to direct them to the relevant fields. only 33.3% disagreed with this statement. It is seen that the physicians participating in our study are aware of the importance of family medicine in the prevention of obesity, but they think that referral to the upper healthcare centre is necessary at the treatment stage. In a study conducted by Rurik et al. (14) in Hungary in 2013, in which obesity management in primary care was examined, 83.7% of physicians disagreed with the statement "The role of general practitioners is to refer overweight or obese patients to relevant professionals instead of treating them". Unlike similar studies, in our study, the reason why the majority of physicians agreed with this issue or remained undecided may be because they thought that according to today's family medicine system, we can conclude that obesity treatment cannot be sustainable in primary care, but as preventive medicine, prevention of obesity rather than treatment is the main role of family physicians.

While 26.2% of the participants agreed with the statement "I am usually successful in helping obese patients lose weight", 55.6% were undecided. In the study conducted by Epling et al. (13) the majority of physicians were undecided about this statement. Our finding is consistent with this study. The fact that the majority of physicians do not consider themselves sufficient in this regard may be due to the fact that obesity follow-up and treatment in primary care has not yet been established and the physicians who participated in our study have little experience in subject. Among the physicians this who participated in our study, 42.2% of those with obesity in their families considered obesity as an

important issue in FHCs, while 63% of physicians without obesity in their families found it important. The difference between the two groups was statistically significant (p=0.020). This situation may be due to the fact that physicians with obesity in their families are familiar with obesity and consider it more normal. In addition, among physicians who "often" calculated the BMI of their patients, 66.7% reported that they were professionally prepared to treat overweight patients, while 33.3% were undecided. No one thought that they were not prepared (p=0.030). And also among the physicians who stated that they calculated the BMI of their patients "often", 25% thought that they were successful in helping their patients lose weight, 75% were undecided and no one thought that they were unsuccessful (p=0.010). This shows that physicians who have more practice in obesity screening or obese patient follow-up are more confident in obese patient follow-up and treatment.

Study limitations: Although our study has some strengths such as representing the population, including only physicians working in primary care and the longest experience of these physicians being in primary care, it has some limitations. One of these is the difficulties in reaching physicians due to the Covid-19 pandemic, as a result of physicians and other employees in FHCs working with preventive precautions and decisions. Another limitation is that although the participants were not necessarily asked for their names or the name of the institution they work, they may have avoided answers that they thought might be lack of knowledge or wrong attitudes and behaviors while answering the self-efficacy, attitude and behavior questions related to obesity management. Lastly, it was concluded that the majority of family physicians did not know the number of patients diagnosed with obesity due to time constraints or not knowing how to look up the number of patients diagnosed with obesity on the family medicine information system, and that the number of patients diagnosed with obesity obtained from those who knew were mostly estimated numbers.

Conclusion

Obesity is a major public health problem worldwide and is a preventable chronic disease. Obesity is one of the most common diseases in primary care and most of obese patients are first seen by their family physician. Therefore, the diagnosis of obesity, family medicine health services in terms of treatment, follow-up and taking preventive measures is the cornerstone of its presentation. Our study shows that although obesity is included in chronic disease follow-up in primary care, it has not been put into practice. It is clear that there is a need to train family physicians on obesity management and help them gain self-efficacy. In addition, appropriate conditions should be provided for physicians to carry out obesity screening and follow-up in FHCs and necessary support should be provided. It is thought that our study will form an infrastructure for other projects that can be developed in this field.

Ethical approval: Approval for this study was obtained from Van Yüzüncü Yıl University Faculty of Medicine Clinical Research Ethics Committee with the decision dated 14.05.2021 and numbered 2021/06-10. In addition, The Directorate of Health Services of Van Provincial Directorate of Health was informed and the necessary permission was obtained with the letter of the Provincial Directorate of Health numbered E-73040253-129 in order to conduct the study in FHCs.

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