Attitudes and Practices of Primary Care Physicians in the Management of Overweight and Obesity in Eastern Saudi Arabia

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Abstract:

Background:
Obesity is a global world-wide health problem in both developing and developed countries. In Saudi Arabia, this problem becomes an alarming disease both during childhood and adulthood among males and females. Primary health care physicians are identified as the first line of defense and contributor to cost-effective for the management and prevention of the disease; they are expected to normalize the weights in the community.

Objective:
The aim of this study was to determine attitudes and practice by physician working in primary health care centers regarding management of obesity in the cities of Dammam and Al-Khobar in the Eastern Province of Saudi Arabia.

Methods:
This study is a cross-sectional study that took place from December 2009 to March 2010. A specially made questionnaire with a Cronbach alpha reliability of 0.86 and content validity by 5 experts was used to measure the attitudes and practices from several different aspects of care provided at primary health care centers to obesity were distributed and collected from 76 physicians working in primary health centers in Dammam and 73 in Al-Khobar in Saudi Arabia. One hundred thirty physicians responded (12.8% non-response rate) and became the sample.

Results:
Eighty-three per cent of physicians has negative attitude toward the concept of obesity, and more than two-thirds of primary care physicians see themselves play a key role in the management of obesity; The mean attitude scores of studied nurses was ranged from2.95±1.06 to 4.34 ±0.82 with an agreement that obesity is considered as a disease and the role of the primary health care physician is not only to refer obese patients to other specialized care as well as difficulties in counseling for weight reduction. However, the majority of physicians gave their obese patients advice on dietary habits and physical activities and also they are sometimes referred obese people to dieticians. Moreover, half of physicians provide educational materials as part of the management and above two third of the studied physicians never use medications in weight reduction. Only one third of them believe that they are well prepared for the treatment of obesity.

Conclusion:
There exist gaps in attitudes contradictory for the management of obesity which indicates Physicians in Eastern Saudi Arabia showed a reasonable level of interest in participating in obesity prevention and management. Accordingly, they need for more education and training in management and prevention of obesity, and should continue education from medical school till post-graduate.

Key Words: obesity, attitude, primary health care, and practices

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Introduction

Obesity has become a worldwide epidemic especially pronounced in young people of both sex, [1] and considered a public health concern in western countries. [2] It is the most common nutritional disorder in the developed countries which have an increase in childhood obesity since they started to adapt the westernized lifestyles and behaviors with excess positive energy imbalance, accelerated by an increasingly sedentary lifestyle in recent decades. [3, 4]

Data obtained from 79 of a total of 147 developing countries giving an estimate of 17.5 million preschool children were overweight in these countries. It was found that the countries with the highest prevalence of overweight were: in the Middle East and Latin America and the Caribbean. [8] Eastern Mediterranean countries, however, were among the countries with the highest prevalence of overweight, ranging from 3.1% to 9.0% among preschool children.[9] Also, among the other Arab countries, the prevalence of overweight and obesity among preschool children, in Bahrain, was 12.3% and 8.4% respectively. [10] The prevalence of obesity and overweight in one to eight years old Saudi children in year 2002 was 10.7% and 12.7% in the boys and girls, respectively. [11]

Primary health care services should play the dominant role in obesity management. Since primary care physicians play a central role in the systematic assessment and management of obesity, Guidelines for the management of obesity have been developed in several countries [15] to promote physical activity and dietary counseling. The U.S. Preventive Services Task Force recommends that clinicians screen patients for obesity and offer intensive counseling and behavioral interventions. [16]

Family Physicians need to assess the patient's readiness to enter weight loss therapy and take appropriate steps for motivation. Weight loss and weight maintenance therapy should employ the combination of low caloric diet, increased physical activity, and behavioral therapy. [17] Strenuous physical activity should be encouraged as strategy directed towards weight reduction in obese as well as prevention of obesity in Saudi. [18] Physicians are the most frequently used sources of health information [19, 20] and have been found to be more cost-effective than dietitians in nutritional counseling for obesity and other patients. [21, 22] Despite these facts, PHC is still underutilized for obesity counseling [23] and its capacity is usually restrained by a number of limitations [24] such as short consultation time, patients' low motivation and non-compliance, inadequate teaching materials, lack of reimbursement, low level of physicians' confidence and a shortage of dietitians. [24, 25]

Inadequate nutrition knowledge has also been reported by physicians themselves or documented objectively. [26, 27] It has been suggested that obesity management in PHC is deficient mainly due to the low identification of patients' weight status and physicians' inefficient efforts at intervention. [25] Less than half of obese individuals are advised to lose weight by their physician. [25, 26]

It seems that there would be a good opportunity for better practice if physicians were supported with appropriate training and the constraints of their working environment were adequately addressed. [30] Physician skill levels may be improved, particularly in terms of assessing the degree of overweight, by additional training in behavioral treatment approaches. Moreover, training physicians in behavioral modification techniques may increase physician involvement in overweight prevention and treatment. [31] The present study was conducted to determine the attitudes and the practices of primary health care physicians in the management of obesity in Dammam and Al-Khobar cities, Eastern Saudi Arabia.

Subjects and Methods

This cross-sectional study was conducted to include 130 out of 149 Primary Health care Physicians at the primary health care centers of the cities of Al-Dammam and Al-Khobar in the Eastern Province of Saudi Arabia were invited to contribute in the study. Sample size is the total number of physicians who agreed to contribute in the study which is equal to 130.

Data were collected by using a self-administrated specially designed questionnaire in order to find-out PHCPs attitudes and practice regarding management of obesity. The questionnaire is made of three parts: Part one: Personal data includes age, gender,

marital status, nationality, language, management and duration, exercise counseling and duration. Part two: 13 statements measure the attitudes of the physician's responses ("agree", "Neutral", "disagree."). The mean agreement score was calculated. Part three: [17] statements measure the practice of the physicians (always, sometimes, never) in the management of obesity.

Cronbach alpha reliability test at .85 was used to test the internal consistency of the items. Content validity was tested by experts. The collected data were recorded; coded, verified, and statistical analysis was done using Statistical Package for Social Sciences (SPSS) version 16.0. Descriptive statistics (means, standard deviations, frequencies and percentages) were calculated.

Permission was taken from the concerned authority to conduct the study. The objectives and benefits of the study were explained to the experience, last qualification, training of weight participants involved in the study. Confidentiality of the information was strictly adhered to by assuring the participants that no details about their status were released and data were only used for research purpose.

Results

The socio-demographic characteristics of the primary health care physicians are shown in table 1. It was noticed that 53.8 % of them were from Dammam and 46.9% from Al-Khobar. The mean age of participants was 40.77 (±SD 8.26) years with a minimum age of 25 years and a maximum of 61 years. A quarter of them were in the age group 35-39 years and more than one third were 45 years and above. Males formed 53.6%, 70.8% were married and 35.4% were Saudis. Only 8.5% of the physicians have board qualification and 57.7% have a bachelor degree.

Table 1. Demographic characteristics of PHC physicians responded to the survey questionnaire.

Characteristics	Number (n=130)	%
City		
Dammam	69	53.1
Al-Khobar	61	46.9
Age group (years)		
25-29	11	8.4
30-34	19	14.6
35-39	33	25.3
40-44	25	19.1
≥ 45	42	32.6
Sex		
Male	70	53.8
Female	60	46.2
Nationality		
Saudi	46	35.4
Non-Saudi	84	64.6
Marital status:		
Married	92	70.8%
Single	30	23.0%
Divorced	4	3.1%
Widow	4	3.1%
Arabic speaking		
Yes	100	76.9

No	30	23.1
Highest qualification degree		
Bachelor	75	57.7
Diploma	26	20
Master	18	13.8
Board	11	8.5

Table 2. Mean and SD agreement score, number and percentage of attitudes toward overweight and obesity .

Factor	Agreement Score*		*PHCPs* (no = 130)					
			Agree		**Neutral**		**Disagree**	
	Mean	**±SD**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Obesity is considered as a disease	4.44	0.88	115	88.4	11	8.5	4	3.1
Overweight people tend to be lazier than the normal weight people.	4.06	0.92	108	83.1	12	9.2	10	7.7
Overweight people lack willpower and motivation in comparison with normal-weight people	3.63	1.08	83	63.8	27	20.8	20	15.4
Physicians' role is to refer overweight and obese patients to other professionals rather than attempt to treat them.	3.01	1.18	48	36.9	26	20	56	43.1
Counseling in weight reduction is easy	2.95	1.06	52	39.2	21	16.2	58	44.6
For overweight and obese people even small weight loss can produce health benefit.	4.32	0.82	116	49.3	8	6.2	6	4.6
Physician should be model in maintaining normal weight.	4.16	0.87	108	43.0	16	12.3	6	4.6
Treating overweight and obese people is professionally rewarding.	4.02	0.84	104	80.0	20	15.4	6	4.6
Only a small percentage of overweight and obese people can lose weight and maintain this loss.	3.49	0.95	75	57.7	30	23.1	25	19.3
I feel confident in managing overweight and obese patients.	3.13	1.01	47	36.2	48	36.9	25	26.9
I consider myself obese	2.78	1.31	44	33.8	24	18.5	32	47.7
I consider myself overweight	3.04	1.42	64	36.2	48	36.9	25	26.9
I feel that primary health care centers are well prepared to manage overweight and obesity.	2.34	1.29	28	21.5	17	13.1	85	35.3

*The agreement score for each item is based on a 5-point Likert scale (minimum mean=1 for strongly disagree and maximum mean= 5 for strongly agree).

Note: agree indicates 4 or 5 (agree and strongly agree) and disagree indicates 1 or 2 (disagree and strongly disagree) on a 5-point Likert scale.

Table 2 shows the mean and the SD agreement score and number and percentage of attitudes toward obesity. Regarding attitudes toward overweight and obese patients, above three quarters (88.4%) of physicians regarded obesity as a disease (4.44 ± 0.88) and 83.1 % considered overweight and obese patients are lazier than normal weight people (4.06 ± 0.92). Moreover, 63.8 % of the respondents (3.63 ± 1.08) thought that overweight people lack willpower and motivation to reduce weight. Near to half of physicians 43.1 % agreed that the role of the primary care physician is not only to refer obese patients to other specialized care (3.01 ± 1.18). In addition, 44.6% of them believed that counseling in weight reduction is not easy (2.95± 1.06). Nearly half of physicians 49.3% as reported that a small weight loss can produce a health benefit (4.32± 0.82). Also, 43% of physicians believed that the physician should be modeled in maintaining weight (4.16± 0.87). More than three quarters of the physicians 80% regarded obesity management as professionally rewarding (4.02± 0.84). However, above half of them (57.7%) agreed that only a small percentage of overweight and obese people can lose weight and maintain this loss (3.49± 0.95). Only one third of them (36.9%) were neutral to the statement that they are well prepared to manage obesity (3.13± 1.01), and 33.8% of them considered them self are obese (2.78± 1.31) and 36.9% of them were neutral to consider them self as overweight (3.04± 1.42). More than one third of physicians (35.3%) felt that PHC centers were not well prepared to manage overweight and obesity (2.34± 1.29).

Table 3. Practice about overweight and obesity

Statement	Always		Sometimes		Never	
	No	%	No	%	No	%
Do you advice your patients to increase physical activities to reduce their weight?	100	76.9	28	21.5	2	1.6
Do you advise your patients to reduce caloric intake to reduce their weight?	92	70.8	4 37	28.5	1	0.8
Do you use "Weight without height" to diagnose overweight or obesity?	17	13.1	44	33.8	69	53.1
Do you use "Body Mass Index (BMI)" to diagnose overweight or obesity?	78	60	43	33.1	9	6.9
Do you use "Waist circumference" to diagnose overweight or obesity?	16	12.3	52	40	62	47.7
Do you use "Waist hip ratio" to diagnose overweight or obesity?	13	10	38	29.2	79	60.8
Do you use "Appearance" to diagnose overweight or obesity?	27	20.8	68	52.3	35	26.9
Do you refer your obese patients to dietitians in obesity management?	35	26.9	80	61.5	15	11.5
Do you refer your obese patients for behavioral therapy in obesity management?	15	11.5	50	38.5	65	50
Do you refer your obese patients for surgery if indicated?	24	15.5	65	50	41	31.5
Do you prescribe weight reducing medications?	7	5.4	29	22.3	94	72.3
Do you provide educational materials as part of managing overweight or obesity?	36	27.7	65	50	29	22.3
In your practice, do you have "a group support" for obese patients?	9	6.9	28	21.5	93	71.6
Do you offer weight control advice for your patients with chronic illness e.g. Diabetes or	76	58.5	38	29.2	16	12.3

dyslipidemia as part of the management?						
Do you record food intake diary for obese patients?	26	20	53	40.8	51	39.2
How frequent do you ask your patients about their physical activity status?	59	45.4	66	50.8	5	3.8
Do you refer obese patients to physical exercise practitioners?	19	14.5	48	36.9	63	48.5

Table 3 summarizes the physician's approach to weight management. The majority of the physicians gave their patients advice on dietary habits (70.8%) and physical activity (76.9%). Regarding the usage of diagnostic methods for obesity, BMI was the most commonly used methods by the physicians (60%). In addition, 12.3% & 10% of physicians reported that they always measure waist circumference and waist hip ratio, respectively and 20.8% of physicians measure obesity by appearance. Also, two thirds of them (61.5%) refer sometimes obese patients to dietitians. Half of them (50%) refer obese patients to behavioral therapy and (50%) of them refer to surgery when indicated. Above of two third (72.3%) of physicians reported that they never used medications to reduce weight. Half of the respondents provide educational materials as part of the management. Almost above two thirds of physicians (71.6%) reported that they never advised or used a group support in obesity management. Almost two thirds of them (58.5%) offer weight control advice for patients with chronic illness e.g. DM or dyslipidemia as part of their management.

Recording food intake diary was used by 40.8% of physicians. Half of them (50.8%) reported that they sometimes ask their patients about their physical activities. Nearly half of them (48.5%) reported that they never refer to their patients for physical exercise.

Discussion

These study findings show that a large proportion of the physicians held strongly positive views regarding their role in obesity control as reflected by their strong obligation and commitment to advice on weight loss even if not asked for by their patients. This is despite the feeling of a low level of effectiveness in their weight-loss practices and their negative views regarding the success of obese patients to lose and maintain the lost weight. The reason for the existing disparity between the level of interest shown by physicians towards obesity management and their perceived low level of effectiveness is not clear.

Whether it results from real experience or from published literature on long-term obesity management [32, 33] remains to be established. However, a noticeable gap exists between the physicians' Attitudes regarding weight management and their current practices. This is demonstrated by the fact that only one-third of respondents would identify their patients' weight problems on a regular basis despite that the majority agreed to advice about weight loss spontaneously, similar to what has been found in an earlier study. [34] Physicians also seemed to identify weight problems as part of chronic disease care more often than for screening purposes. This suggests a therapeutic rather than preventive approach towards weight problems. Physicians utilized various approaches in weight-loss management. Similar to other studies, [35-38] lifestyle therapy was the most frequently used approach. The benefits of long-term behavioral modification and family involvement in the management of obese patients have been clearly highlighted in the literature. [39, 40]

Conclusion

PHCPs had a greater sense of professional satisfaction than practitioners in other countries, probably because they set realistic weight loss goals. Despite this, they have judged their weight management practice as ineffective. This could be due to their negative attitude towards obese patients and the success of weight management, as the majority believed that obese patients are unlikely to achieve and maintain weight loss or to comply with weight-loss strategies.

Based on the findings of the present study, it is recommended that a collaborative team

work with other health professionals, especially dietitians should be encouraged. In addition, anti-obesity drugs and surgery are underutilized even if indicated, which should be considered in future patient education. Like other studies, training in lifestyle counseling and behavior modification was highlighted as an important need, and seems to predict physicians' confidence in implementing weight-management strategies.

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