Knowledge, Attitude and Practice Regarding Obesity Management among Family and Non Family Physicians Working in Primary Health Care Centers in Baghdad

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ABSTRACT:

BACKGROUND:
The rising level of obesity has been called the most urgent challenge to public health for the 21st century. While many social institutions should be involved in addressing this problem, family physicians have an important role in identifying and managing obesity.

OBJECTIVE:
To assess and compare the knowledge , attitudes and practice regarding obesity management among family and non family physicians working in primary health care centers.

PATIENTS AND METHODS:
A cross-sectional survey has recruited a randomly selected sample of primary health care physicians working in primary health care centers in Baghdad in 2010. A structured self-administered questionnaire was used to collect data from 232 physicians. These include family medicine board certified and other non-family medicine certified physicians. The questionnaire had four main parts: personal data, knowledge, attitude and practice.

RESULTS:
The majority of the respondents depend on the waist circumference to diagnose obesity with 100% among the family physicians and (74.2%) among non-family physicians. The majority of the respondents think that obesity is a major health problem in Iraq with 49 (96.08%) among the family physicians and132 (72.93%) among non family physicians. About (84.3%, 72.5% and 41.2%) of family physicians agreed to prescribe Weight reduction medication when BMI >30, Patient not on diet and on patient request respectively. Almost all family physicians (92.1%) agreed that is it better to have a training course in obesity management compared to 49.46% among non- family physicians.

CONCLUSION:
Both the family and non-family physicians working in the primary health centers need to improve their knowledge and skills regarding obesity management.

KEYWORDS: obesity management, family physician, knowledge, attitude, practice.

INTRODUCTION:

Obesity is increasing at an alarming rate throughout the world [(1)]. The rising level of obesity has been called the most urgent challenge to public health for the 21st century [(2)]. The World Health Organization (WHO), despite its historical focus on malnutrition, has recognized the problem of obesity. The organization called for urgent action to combat the growing epidemic of obesity, which now affects developing and developed countries alike [(3)]. Today it is estimated that there are more than 300 million obese individuals in the world [(1)].

In general, obesity is associated with a greater risk of disability and/or premature death due to type 2 diabetes mellitus, cardiovascular diseases such as hypertension, stroke and coronary heart disease, gall bladder disease, certain cancers (endometrial, breast, prostate, colon) and non-fatal conditions such as gout, respiratory conditions, gastro-esophageal reflux disease, osteoarthritis and infertility. Obesity also carries serious implications for psychosocial health, mainly due to societal prejudice against fatness [(4)].

In Iraq a study carried out in Baghdad in 1997 showed that the prevalence of obesity was

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23.16% in women aged 25 years and above. Another study shows that the prevalence of obesity and overweight is relatively high in children in central Iraq [5]. A recent survey held in Iraq by the Ministry of Health (Iraq Family Health Survey 2006/7) reported that the prevalence of overweigh and obesity (47-67) %, the rate of overweight were (69.6% and 63.6%) among females and males respectively [6]. Because of high patient contact rates and the perceived creditability of physicians by the public, primary care physicians and family physician have been identified as an important and cost-effective contributor to treatment and prevention of overweight and obesity by counseling their obese patients and promoting healthy lifestyle [2,3] . However, it has been documented that many obese and overweight patients receive no advice on weight loss during primary care visits [7].

Despite the high prevalence of obesity and its associated harmful health effects, prior studies have demonstrated that physicians lack confidence in treating obesity and may have negative attitudes towards obese patients. Physicians frequently fail to counsel patients about nutrition and weight management and frequently report and demonstrate a lack of training and competence in obesity management [4, 7].

Attitudes can serve to motivate a provider to take action and encourage a physician to feel capable of tackling a particular behavior [8]. Physicians' attitudes and beliefs about their own practice and their general efficacy in treating obesity may also influence their treatment of patients [9, 10].

The aim of this study was to assess and compare the knowledge, attitudes and practice regarding obesity management among family and non family physicians working in primary health care centers.

PATIENTS AND METHOD:

Primary health care in Baghdad is provided through a network of more than100 primary health care centers distributed all over the Baghdad in two discrete; AL-Rusafa and AL-Kurkh. There are 350 physicians working at these centers. This cross-sectional survey has recruited primary care physicians working in primary health care centers in Baghdad from 1st of June- 1st of November/ 2010. We choose five centers randomly from each district,

Sample size is calculated to be 232 physicians. These include family medicine board certified and other non-family medicine certified physicians. The physicians were randomly selected from the list. The number of participants doctors were (118, 114) from AL-Rusafa and AL-Kurkh respectively.

Structured self-administered questionnaire was used to collect data from the primary care physicians. The questionnaire was in English and had four main parts: personal, knowledge, attitude and practice data.

Personal data includes age, gender, years of actual working in PHC centers, the specialty (whether family or non family physicians), continuous medical education (CME) sessions regarding obesity and source of knowledge about obesity. Knowledge about obesity management includes 5 statements testing knowledge about measures used in obesity diagnosis, diseases predisposed to or provoked by obesity and drugs predispose to obesity. Answers were categorized into (Yes, No).

Attitudes associated with obesity, tested in 4 statements; testing attitude about the obesity as major problem, referring obese patient to specialized center, the need to have training courses on obesity or including obesity topic in health education programme provided in PHC center. The answers were categorized into (Yes, No).

Practicing obesity management was clarified with 4 statements about diagnostic measures, supportive laboratory tests, weight reduction drug prescription, and convenient mean weight loss / week in follow up of obesity management. Answers were categorized into (yes, no). Data were coded and entered into Statistical Package of Social Science, version 17.00 for windows (SPSS-17).

RESULTS:

Knowledge:

Table 1 presents the profile of physicians who participated in the survey with one hundred and forty six physicians were females (62.9 %) and 86 (37%) were males. Among these categories, only 22 % were family board certified physicians and 78 % were general practitioners and other specialty rather than family physicians.

Regarding experience in PHC centers, 58% had ten years experience and less, while 42.2 % had more than 10 years experience.

Only 57 participants (27.5%) have received training in obesity management. Regarding the source of their knowledge about the obesity the majority of physicians 82% reporting the internet

was the main source rather than available books and medical lectures.

Table 2 presents participant knowledge regarding obesity and its management. The majority of the respondents depend on the waist circumference to diagnose obesity with 100% among the family physicians and74.2% among non-family physicians, other measures like waist- hip ratio and neck circumference were also reported by the family physicians with (94% and 72.5%) respectively and (57.5% and 53.2%) for the non-family physicians respectively. Significant statistical association was found between the family and non family physicians regarding the type of measurement diagnose obesity (p= 0.00).

Regarding medical conditions predisposed to obesity, 100% of family physicians were aware that obesity is associated with polycystic ovaries, compared to 75.4% for the non- family physicians with significant statistical association (p= 0.00).

In terms of diseases provoked by obesity, most of family physicians (78.4%, 90%, and 88.2% and 100 %) were aware that obesity provokes Bahgets disease, osteoarthritis, cancer of colon and hypertension respectively. While the majority 72.1% of non- family physicians were aware of obesity provokes hypertension with significant statistical association (p=0.00).

Regarding drugs predispose to obesity, almost all of family physicians were aware that obesity is associated with drugs intake steroid compared to (75.4%) for the non- family physicians with significant statistical association was found between the family and non family physicians regarding that anti-depressant and steroid predispose to obesity (p=0.00).

Attitudes:

Table (3) presents participant attitude regarding obesity and its management. The majority of the respondents think that obesity is a major health problem in Iraq with 49 (96.08%) among the family physicians and132(72.93%) among non family physicians, significant statistical association was found between the family and non family physicians regarding attitude that obesity is a major health problem in Iraq(p0.00).

More than three quarters (81.7%) of non family physicians agreed that it is better to refer the obese patient to a specialized center, while nearly half (51%) of family physicians considered that they are professionally well prepared to manage obesity at the PHC. No significant statistical association was found between the family and non family physicians regarding attitude to sent the obese patient to specialized center(p=0.09).

The majority of family physicians 92.1% agreed that is it better to have a training course in obesity management compared to 49.46% among non- family physicians with significant statistical association (p=0.00).

Regarding attitudes toward including obesity in health education programme, all the family physicians (100%) agreed to that while three quarters (75.1%) of the non family physicians agreed to, with significant statistical association (p=0.003).

Practice

Table 4 summarizes physician's approach to obesity and its management. The majority of respondents depended on the weight more than the predictable weight for age with 100% among the family physicians and 77.3% among other physicians. Other measures like BMI >30 and Neck circumference >32 cm were also reported by the family physicians with (96%, 62.7%) respectively and (17.5% and 48.3%) for the other physicians respectively. significant statistical association was found between the family and non family physicians regarding the laboratory measurement of BMI and neck circumference to diagnose obesity (p=0.00).

Regarding the usage of laboratory measures for diagnosis obesity; lipid profile was the most commonly used method by the physicians with 100% among family physicians and 77% among other physicians, with significant statistical association (p=0.00).

The majority 84.3% of family physicians agreed to prescribe Weight reduction medication when BMI >30cmpared to 72.4 % for the non family physicians with significant statistical association (p= 0.00).

To follow-up individual with obesity , the convenient mean weight loss of ≤ 500 gm / week were considered convenient by only 22 (43.1%) of family physicians . while 123(84.8%) were reported among the non family physicians with significant statistical association (p= 0.00).

Life style measures to decrease weight were recommended by most physicians. The majority (82.3%, 96% and 100%) of family physicians advice their patients to decrease time spent watching TV, recommend intake of food low in (calorie, fat and sugar) and regular physical exercise respectively. While (54.3%, 76.8% and76.6%) were reported for the non family

physicians respectively with significant statistical (p= 0.00).

DISCUSSION:

This study examined the knowledge, attitude, and practice in obesity management among primary care physicians working in PHC Centers in Baghdad.

The present results indicated deficiency in knowledge regarding obesity, especially at a basic knowledge as measuring methods, predisposing factors (diseases and drugs) and co morbidity of this health problem. Nearly one fifth of the family physicians deny neck circumference as an obesity measure compared to one half among the non-family physicians.

The present study shows that majority of the non-family physicians working in the PHC Center are not aware of some diseases that provoked by obesity like colonic cancer and Bahget disease as well as the predisposing factors for obesity like antidepressant drugs. This deficiency in knowledge reported by this study agreed with several studies that have shown that GPs knowledge about management of obesity is incomplete and thus expresses the need for clinical guidelines and supplementary training in obesity management as a part of residency and continuous medical education training [11,12,13,14].

The present study shows that most of the physician working in the PHC Centers reported that internet was the main source of their knowledge regarding obesity management rather than medical books or personal experience. A study held in Britain showed that, experience followed by journals and textbooks were the main source of their physician's knowledge regarding obesity management [15].

Despite the fact that the present study showed that both the family and non- family physicians had a positive attitude in considering obesity as major health problem in Iraq , it was shown that the majority of the non- family physicians prefer to refer the obese patient to specialized center. While about one half of the family physicians prefer to manage the patient at the PHC Center which is considered as a positive attitude of physicians toward their role and effectiveness in managing obesity. Similar positive attitudes have been found among Qatar, Kuwait, Australia and France G.Ps [16, 17, 18, 19].

The majority of both family and non-family physicians agreed that it is better to include obesity topic in health education programme to educate the patient attending the PHC Center regarding obesity. On the other hand almost all of the family physicians addressed their need to have training courses about obesity management while about one half of the non family physician disagreed to, this may be explained by fact that the non family physicians may not be aware about their need to improve their nutritional knowledge and obesity counseling practice. A survey among Australian general practisions (GPs) revealed that most GPs considered training on practicing dietary and physical activity assessment and advice for overweight patients to be very important, although they acknowledged that such a role was least likely to be practiced because they have inadequate nutrition knowledge and obesity counseling skills [20, 21].

In the present study obesity could mainly be diagnosed when the patient weight is more than the ideal weight for age or when BMI> 30 kg/m^2 or by using lipid profile these measures alone is not a sufficient predictor of risk of co-morbidities. There is more and more evidence that waist circumference or the waist: hip ratios are useful indices of abdominal fat accumulation and a better correlation with ill health and risk of coronary heart disease [22].

This indicate that some physicians could not differentiate between the clinical definitions of overweight and obesity, however this finding was comparable to that of Block et al who reported that only 40% of internal medicine residents were able to correctly identify the minimum BMI at which a person is considered obese[23].

Our study showed that the majority both family and non- family physicians prescribe the weight reduction medication when BMI >30 kg/m^2 while about one half of them prescribe the weight reduction drugs on patient request only. This high percentage inconsistent with many studies which reported low percentage like studies held in Korea, Middle East Countries like Kuwait and in Korea [17,24].

The high percentage of prescribing the drug can be attributed to the availability of these drugs outside the health center and with no concern about the potential adverse effect of these drugs. While several studies showed that G.Ps regarded promoting healthy lifestyle as more effective than drugs in obesity management [18, 25].

The present study had shown that almost all the family physician advice on regular exercise and dietary habits as common practice in obesity management compared to three quarter of the

non-family physicians. This finding was similar to what had been reported in other researches, for instance 80% of GPs in Qatar, 99% in United State, and 90% in Germany [16, 26, 27].

Table 1: The distribution of the sample according to some socio-demographic characteristics.

variables	No. (%)
Age (years)	
≤35	127 (54.74)
>35	105 (45.26)
total	232 (100)
Gender	
Male	86 (37.07)
Female	146 (62.93)
total	232 (100)
Specialty	
Family medicine	51 (21.98)
Other	181 (78.02)
total	232 (100)
Experience in PHC Centers(years)	
≤10	134 (57.76)
>10	98 (42.24)
total	232 (100)
CME sessions regarding obesity	
Yes	57 (24.57)
No	175 (75.34)
total	232 (100)
Source of knowledge regarding obesity	
Available books	35 (15.09)
Medical lectures	25 (10.78)
Internet and others	195 (84.05)
total	232 (100)

Table 2: Knowledge of the primary health care centers physicians regarding obesity

knowledge	Family physicians No. (%)	Non- family physicians No. (%)	total	Chi-Square Test & P-value
Obesity can rather than BMI be diagnosed by:				
- Waist circumference	51(100)	147(74.24)	198(85.3)	X^2 = 0.609, P = 0.006
- Waist-hip ratio	48(94.12)	65(57.52)	113(48.7)	X^2= 10.276 , P = 0.000
- Neck circumference	37(72.55)	42(53.16)	79(34.1)	X^2= 22.197, P = 0.000
Medical conditions predispose to obesity:				
- Polycystic ovaries	51(100)	157(75.48)	208(89.7)	X^2= 0.609,P = 0.006
- Metabolic syndrome	46(90.2)	85(64.89)	131(56.5)	X^2= 10.276, P = 0.000
- Cushing syndrome	43(84.31)	111(72.08)	154(66.4)	X^2= 2.471, p= 0.002
Diseases provoked by obesity:				
- Bahgets disease	40(78.43)	7(14.89)	47(20.3)	X2 = 85.192, P = 0.00
- Osteoarthritis	46(90.2)	48(51.06)	94(40.5)	X^2 = 30.362, P = 0.000
- Cancer of colon	45(88.24)	18(28.57)	63(27.2)	X^2 = 68.928, P = 0.000
- Hypertension	51(100)	132(72.13)	183(78.9)	X^2 = 2.884 , P = 0.000
Drugs predispose obesity :				
- Anti depressant	39(76.47)	13(25.0)	52(22.4)	X^2 = 84.647 ,P = 0.000
- Hypoglycemic	41(80.39)	127(71.6)	168(75.4)	X^2 = 0.008 , P = 0.817
- Steroid	51(100)	150(75.63)	201(86.6)	X^2 = 1.051, P = 0.001

Table 3: Attitude of primary health care centers physicians regarding obesity.

Attitude	Family No. (%)	Non-family No. (%)	Total	Chi-Square Test & P-value
-Do you think that obesity is major problem in Iraq?	49(96.08)	132(72.93)	181(78)	X2= 2.132, P = 0.000
-In PHC, is it better to refer obese individual to a specialized center?	25(49.02)	112(81.75)	137(59.1)	X2 = 0.869 , P = 0.099
-In PHC, is it better to have a training course in obesity management?	47(92.16)	46(49.46)	93(40.1)	X2 = 3.409, P = 0.000
-In PHC, is it better to include obesity topic in health education programme?	51(100)	154(75.12)	205(88.4)	X2 = 0.782 ,p = 0.003

Table 4: practice of primary health care centers physicians regarding obesity.

Practice	Family No. (%)	Non-family No. (%)	Total	Chi-Square Test & P-value
Physician depends on the following measures to diagnose obesity:				
- BMI >30 kg/m^2.	49(96.08)	130(71.51)	179(77.2)	X2 =2.36, P =0.000
- Neck circumference>32 cm.	32(62.75)	17(34.69)	49(21.1)	X2 =41.83,P = 0.000
-weight more than the ideal weight for age.	51(100)	171(77.03)	222(95.7)	X2 = 0.09, P = 0.086
Physician used to do the following laboratory test to individual with obesity:				
-Blood glucose.	47(92.10)	10(17.54)	57(24.6)	X2 = 94.825, P = 0.000
-Hormonal assay.	45(88.24)	42(48.28)	87(37.5)	X2 = 35.007, P = 0.000
- Lipid profile	51(100)	105(67.31)	156(67.2)	X2 = 8.139, P = 0.000
Physician used to prescribe a weight reduction medication when:				
-BMI >30 kg/m^2	43(84.31)	132(72.43)	175(75.4)	X2 = 0.533 , P =0.009
-Patient not on diet	37(72.55)	73(66.36)	110(47.4)	X2 = 6.796, P = 0.000
- Patient request	21(41.18)	25(54.35)	46(19.4)	X2 = 5.338, P = 0.002
In follow up ,the mean weight loss of 500 gm / week is convenient to physician.	22(43.14)	123(84.84)	145(62.5)	X2 = 3.059, , P = 0.001
Life style measures recmmended by the physician to decrease weight:				
-Decrease time spent watching TV.	42(82.35)	50(54.35)	92(39.6)	X^2= 23.447, p = 0.000
-Food low in calorie, fat and sugar.	49(96.08)	162(76.78)	211(90.9)	X^2= 23.447,p = 0.000
-Regular physical exercise.	51(100)	167(76.61)	218(93.9)	X^2= 0.198, P = 0.040

CONCLUSION :

Both the family and nonfamily physicians working in the primary health centers need to improve their knowledge and skills regarding obesity management.

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