

Reviewing the Current Evidence Diagnosis of Obesity in Family Medicine

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Abstract: This review was aimed to discuss the evidence diagnosis of obesity in family medicine, through reviewing the articles concerned with this matter, we intended also to highlight the management approaches that family physicians should consider as interventions for obese patients. We conducted a Comprehensive search through electronic databases; Medline, Embase, and Scopus for published articles concerning the obesity diagnosis in primary care up to September, 2017. Family doctors should record obesity as a diagnosis or formulate an excessive weight management strategy in the majority of patients. Weight problems diagnosis led to a higher chance of the solution of an excessive weight management plan.

Keywords: Family Medicine, management approaches, body mass index (BMI).

1. INTRODUCTION

Overweight and obesity represent a rapidly growing pandemic of public health issues that affect essentially all ages and socio-economic groups [1,2]. They are associated with high blood pressure, heart disease, gallstones, osteoarthritis, type 2 diabetic issues, rest apnea, hatred, [3,4] emotional as well as social problems in kids impaired high quality of life, self-worth as well as anxiety [4]. Globe Health Organization (WHO) specifies obese as a body mass index (BMI) of 25 to 29.9 kg/m² and obesity as a BMI of ≥ 30 kg/m² [1]. Weight problems is the 2nd leading reason for avoidable death in the USA [5]. The frequency price of weight problems in grownups in the USA is 30.5%, and the percentage of obese was 64.5% in 2000 [6].

In Arab and Gulf nations, the occurrence of excessive weight and also overweight is raising in both adults and children [7,8,9]. In Qatar, it is approximated that 29.3% of women and 17.4% of men are obese [8]. In Bahrain, the occurrence of excessive weight was more significant among females, 32%, than males, 25%, throughout every age teams [9]. In Kuwait, the occurrence of obese and weight problems enhanced by 20.6% and also 15.4% and by 13.7 and 8.4% amongst women and men, respectively [7]. In Saudi Arabia, 1 in every 6 kids aged 6 to 18 years of ages is obese [10]. Small weight control has been shown to enhance many danger elements for cardiovascular, lung, as well as cancer cells problems [1,5]. Primary health care physicians (PHCPs) are ideally put to play a leading duty in evaluating and taking care of weight problems. Standards for the management of excessive weight have been established in numerous nations [5]. to advertise physical activity and nutritional therapy. The United States Preventive Services Task Force advises that clinicians display patients for obesity and also offer intensive therapy and also behavior treatments [11]. Physicians are one of the most frequently made use of resource of health and wellness information and also have been located to be a lot more cost-efficient compared to dietitians in nutritional therapy for various other and obese patients [12,13]. Despite these realities, primary healthcare (PHC) is still underutilized for excessive weight counseling and its ability is usually lessened by a variety of constraints [14,15].

This review was aimed to discuss the evidence diagnosis of obesity in family medicine, through reviewing the articles concerned with this matter, we intended also to highlight the management approaches that family physicians should consider as interventions for obese patients.

2. METHODOLOGY

We conducted a Comprehensive search through electronic databases; Medline, Embase, and Scopus for published articles concerning the obesity diagnosis in primary care up to September, 2017, using the following search terms: obesity, primary care, family physicians, diagnosis. We limited articles extraction in those which were published in English with human subject. bibliographies found in included studies were reviewed for more relevant articles useful for our review.

3. DISCUSSION

There are several methods for assessing obesity and overweight, but the two most commonly used in clinical practice are body mass index (BMI) and waist circumference (Table 1) [16]. Body mass index is a reliable determinant of adiposity-related health risk; waist circumference measures abdominal (central) body fat and is strongly correlated with increased risk for diabetes, hypertension, dyslipidemia, metabolic syndrome and other obesity-related illnesses and death [16].

Table1: Obesity diagnosis using BMI and waist circumference [16,17]

A. BMI
• Overweight (25.0–29.9 kg/m ²): increased risk
• Obesity class I (30.0–34.9 kg/m ²): high risk
• Obesity class II (35.0–39.0 kg/m ²): very high risk
• Obesity class III (≥ 40.0 kg/m ²): extremely high risk
B. Waist circumference[†]
• Men, ≥ 102 cm: increased risk
• Women, ≥ 88 cm: increased risk
C. Combined BMI and waist circumference
• Normal weight (18.5–24.9 kg/m ²) with abnormal waist circumference: increased risk
• Overweight with abnormal waist circumference: high risk
• Obesity class I with abnormal waist circumference: very high risk
• Note: BMI = body mass index.
• *Risk of obesity-related comorbidities (e.g., diabetes, hypertension, dyslipidemia, metabolic syndrome).
• [†] As measured at the midpoint between the last rib and the iliac crest.

Interpreting the relationship between BMI or waist circumference and health and wellness threat in people older than 65 years of age needs care. Health threat may not be enhanced in elderly people who are overweight, whereas a boosted wellness risk may occur with a low BMI [16]. Although body-weight classification is planned for usage in all ethnic and also racial groups in Canada, there are constraints in using it to nonwhite Canadians. Among Asian Canadians, lower BMI cut-offs for overweight (> 23 kg/m²) as well as overweight (> 27 kg/m²) might be warranted [16,17]. Health and wellness threat appears to be reduced for a given variety of BMI as well as midsection area among black Canadians compared to amongst white Canadians, recommending the requirement for higher cut-offs to determine increased wellness threat in this populace. More research is needed to determine the appropriateness of these cut-offs for Aboriginal adults.

The significance of gauging waist area is sustained by the outcomes of the 2007 - 2009 Canadian Measures Health Survey: 2.6% of grownups with normal weight, 35.3% of adults with obese and also 93.0% of grownups with weight problems had midsection areas suggesting abdominal weight problems [18]. Furthermore, although BMI data recommend that 24% of Canadian adults are at high threat for obesity-related illness or death, 37% of Canadian grownups are at high risk when waist area is considered [18]. Therefore, making use of both procedures increases the limit for identifying

patients at risk for illness. The risks for all clinical conditions connected with weight problems increase with greater BMIs and also bigger waist areas (**Table 1**), [16]. and also lower with weight-loss and its lasting maintenance [11].

The significant restraints determined by PHCPs versus the management of weight problems were connected to a lack of primary health care management support and also inadequate health care system, absence of training, high failure rate in weight decrease, absence of centers, and lack of diet professionals, time constraints, as well as poor patient adherence to management strategies. These findings resemble those of other reported studies [19,20]. Physicians' self-confidence in managing obese and weight problems is simply typical. The significant constraints recognized by medical professionals in their management of excessive weight related to the PHC system and/or aspects related to patients. Short examination time reported by the bulk of physicians in various other researches [21,22]. Is a popular obstacle to the management of the preventative solutions in primary health and wellness care. The absence of professional guidelines was reported as a vital limiting variable; however, in some developed nations where there are nationwide guidelines, only a few practitioners showed excellent recognition of them [21,22].

Obese patients that had a medical diagnosis of obesity had an around 2.5 times greater chance of formula of a weight problems management strategy compared to those without a documented weight problems diagnosis, regardless of various other variables. Documentation of excessive weight probably requires the medical professional to think even more concerning excessive weight as a separate condition as well as take on procedures to resolve it. A comparable result was observed amongst 2 small studies that entailed resident medical professionals [20,22].

Importance of Dietary & Physical activity interventions:

Studies, including randomized controlled trials, have actually tried to contrast the favorable impacts of specific nutritional make-ups on modifications in weight [23,24]. These tests suggest that dietary adherence and caloric restriction are more vital than macronutrient make-up in identifying fat burning. Canadian guidelines on weight problems suggest a low-fat or high-protein diet plan as a sensible short-term (6 - 12 mo) therapy choice for adults with weight problems [25].

Because physicians could not have the time or expertise to provide appropriate recommendations on nutritional make-up, prescribing such diets in clinical technique could be difficult. The guidelines recommend that an optimum nutritional strategy is established, ideally by a signed up diet professional [25]. Inning accordance with a recent meta-analysis, dietary therapy for patients with obesity can cause a mean modification in weight of -1.9 (95% self-confidence period [CI] -2.3 to -1.5) BMI systems (6% of first body weight [5 kg] at 12 months compared with usual care [26]. Nonetheless, the writers also located that weight-loss lessened in time, emphasizing the relevance of providing lasting therapy to patients.

A Cochrane testimonial of 43 randomized controlled tests revealed that exercise-only interventions could lead to a minimal mean weight loss of 2.03 (95% CI 2.82 to 1.23) kg compared with no treatment [27]. Interventions that combine workout and diet plan caused a greater decrease in weight compared to nutritional treatments alone (a change of -1.0 kg, 95% CI -1.3 to -0.7 kg), and also boosting the intensity of the exercise boosted fat burning by 1.5 (95% CI 2.3 to 0.7) kg [27]. The Canadian standards advise 30 mins of physical activity of moderate intensity each day, enhancing to 60 mins per day as part of a general weight-loss program, which needs to be both sustainable and also tailored to the individual [25].

Several researches noted that medical professional's suggested healthy way of life (increased physical activity), dietary suggestions (reduced variety of overall calories) or referral to a dietician however hardly ever supplied a sensible program of how to execute these suggestions. It is apparent that there is a need for education and learning of healthcare medical professionals to boost the uniformity of the analysis and improve medical professionals' self-efficacy in taking care of an adult as well as childhood years' weight problems [28,29].

4. CONCLUSION

Based upon evidence searching's for, the family physicians generally displayed proper expertise of overweight as well as weight problems, other than on the items that mentioned that excessive weight on its own was a risk aspect for colon cancer, for endometrial cancer cells, for breast cancer cells and that low socio-economic course could predispose to obesity. family doctors should record obesity as a diagnosis or formulate an excessive weight management strategy in the majority of patients. Weight problems diagnosis led to a higher chance of the solution of an excessive weight management plan.

REFERENCES

- [1] WHO. Report of the WHO consultation on obesity. Geneva: WHO; 1998. Prevention and management of the global epidemic of obesity. Available from: [http://whqlibdoc.who.int/hq/1998/WHO_NUT_NCD_98.1_\(p1.158\).pdf](http://whqlibdoc.who.int/hq/1998/WHO_NUT_NCD_98.1_(p1.158).pdf) .
- [2] Flegal KM, Troiano RP. Changes in the distribution of body mass index of adults and children in the US population. *Int J Obes Relat Metab Disord*. 2000;24:807–18.
- [3] Mikhail N, Tuck ML. Epidemiological and clinical aspects of obesity related hypertension. *J Clin Hypertens*. 2000;2:41–5
- [4] Schwimmer JB, Burwinkle TM, Varni JW. Health-related quality of life in severely obese children and adolescents. *JAMA*. 2003; 289:1813–9.
- [5] Clinical guidelines on the identification evaluation and treatment of overweight and obesity in adults: The evidence report. National Institutes of Health. *Obes Res*. 1998;6(Suppl 2):51–210S.
- [6] Flegal K, Carroll M, Ogden C, Johnson C. Prevalence and trends in obesity among US adults, 1999-2000. *J Am Med Assoc*. 2002; 288:1723–7.
- [7] Al-Jeheidli AH, Moquddan FI, Al-Rumh MK, Salmin NN. General Practitioners Attitudes and Practices toward Managing Obesity. *Kuwait Med J*. 2007;39:138–43.
- [8] Al-Muraikhi AE, Al-Kuwari MG. Primary Care physicians' knowledge, attitude, and practice toward obesity management in Qatar. *Middle East J Fam Med*. 2008;10:3–7.
- [9] James PT, Leach R, Kalamara E, Shayeghi M. The worldwide obesity epidemic. *Obes Res*. 2001;9(Suppl 4):228–33S.
- [10] Al-Nozha MM, Al-Mazrou YY, Al-Maatouq MA, Arafah MR, Khalil MZ, Khan NB, et al. Obesity in Saudi Arabia. *Saudi Med J*. 2005;26:824–9.
- [11] U.S. Preventive Services Task Force. Screening for obesity in adults: Recommendations and rationale. *Ann Intern Med*. 2003;139:90–2.
- [12] Truswell AS, Hiddink GJ, Blom J. Nutrition guidance by family doctors in a changing world: Problems, opportunities, and future possibilities. *Am J Clin Nutr*. 2003;77:1089–92S.
- [13] Olsen J, Willaing I, Ladelund S, Jorgensen T, Gundgaard J, Sorensen J. Cost-effectiveness of nutritional counseling for obese patients and patients at risk of ischemic heart disease. *Int J Technol Assess Health Care*. 2005;21:194–202.
- [14] Mercer SL, Green LW, Rosenthal AC, Husten CG, Khan LK, Dietz WH. Possible lessons from the tobacco experience for obesity control. *Am J Clin Nutr*. 2003;77(Suppl 4):1073–82S.
- [15] Glanz K. Review of nutritional attitudes and counseling practices of primary care physicians. *Am J Clin Nutr*. 1997;65(Suppl 6):2016–9S.
- [16] Douketis JD, Paradis G, Keller H, et al. Canadian guidelines for body weight in adults: application in clinical practice to screen for overweight and obesity and to assess disease risk. *CMAJ* 2005;172:995–8
- [17] Whitlock EP, Orleans T, Pender N, et al. Evaluating primary care behavioral counseling interventions: an evidence-based approach. *Am J Prev Med* 2002;22:267–84
- [18] Janssen I, Shields M, Craig CL, et al. Prevalence and secular changes in abdominal obesity in Canadian adolescents and adults, 1981 to 2007–2009; prevalence of abdominal obesity in Canada. *Obes Rev* 2011;12:397–405
- [19] Mauro M, Taylor V, Wharton S, Sharma AM. Barriers to obesity treatment. *Eur J Intern Med*. 2008;19:173–80.
- [20] Almajwal A, William P, Batterman M. Current dietetic practices of obesity management in Saudi Arabia and comparison with Australian practices and best practice criteria. *J Nutr Diet*. 2009;66:94–100.
- [21] Bocquier A, Verger P, Basdevant A, Andreotti G, Baretge J, Villani P, et al. Overweight and obesity: Knowledge, attitudes, and practices of general practitioners in France. *Obes Res*. 2005;13:787–95.

- [22] Truswell AS. Family physicians and patients: Is effective nutrition interaction possible? *Am J Clin Nutr.* 2000;71:6–12.
- [23] Alhassan S, Kim S, Bersanim A, et al. Dietary adherence and weight loss success among overweight women: results from the A to Z weight loss study. *Int J Obes (Lond)* 2008;32:985–91
- [24] Sacks FM, Bray GA, Carey VJ, et al. Comparison of weight-loss diets with different composition of fat, protein and carbohydrates. *N Engl J Med* 2009;360:859–73.
- [25] Lau DCW, Douketis JD, Morrison KM, et al. 2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children [summary]. *CMAJ* 2007;176:S1–13.
- [26] Dansinger ML, Tatsioni A, Wong JB, et al. Meta-analysis: the effect of dietary counseling for weight loss. *Ann Intern Med* 2007;147:41–50
- [27] Shaw K, Gennat HC, O'Rourke P, et al. Exercise for overweight or obesity. *Cochrane Database Syst Rev* 2006;1:CD003817.
- [28] Fogelman Y, Vinker S, Lachter J, Biderman A, Itzhak B, Kitai E: Managing obesity: a survey of attitudes and practices among Israeli primary care physicians. *Int J Obes Relat Metab Disord.* 2002, 26: 1393-1397.
- [29] van Gerwen M, Franc C, Rosman S, Le Vaillant M, Pelletier-Fleury N: Primary care physicians' knowledge, attitudes, beliefs and practices regarding childhood obesity: a systematic review. *Obes Rev.* 2009, 10: 227-236.