

## Impacts on Family Medicine in the Obesity Management

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### Abstract

### Original Research Article

Obesity is a major public health concern requiring a comprehensive, effective management approach. Family medicine plays a critical role in the management of obesity, but the extent of its impact is not well-established. This literature review of the impact of family medicine on obesity management identifies the most effective strategies for the management of obesity in primary care. Patient education on weight, exercises, food, and body mass index (BMI) recording. Find studies focusing on family medicine's effects on managing children and adolescents' obesity. Family medicine interventions significantly reduced weight and BMI and improved obesity-related comorbidities, including hypertension, diabetes, and dyslipidemia. Although height and weight were measured for most children and adolescents, their BMI-for-age was not calculated, and they were unlikely to receive weight-related education. The most effective interventions included comprehensive lifestyle modifications, multidisciplinary team-based care, and continuous follow-up and support. Family medicine plays a critical role in the management of obesity, and its impact is significant in reducing weight and BMI and improving obesity-related comorbidities. The findings of this study focus on the importance of using family medicine to treat obesity. Overall, this study supports the ongoing efforts to address the obesity epidemic and promote public health through effective obesity management strategies.

**Keywords:** Obesity, Education, Evaluation.

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## INTRODUCTION

Millions of people worldwide are suffering from obesity, making it a major issue for public health [1]. Because of the many contributing factors, it must be treated holistically. Cardiovascular disease, stroke, and type 2 diabetes are just a few of the many serious health problems that have been linked to obesity. Because of this, it is essential to control obesity if these side effects are to be avoided or controlled effectively [2].

Consequences for the future of healthcare are substantial in light of the present obesity pandemic. The costs to society of treating people who are overweight or obese are estimated to be between annually, \$117 billion [3]. Primary care practitioners have been recommended to prioritize the diagnosis and treatment of obesity during preventive health physical examinations because of the large number of people affected, the associated health consequences, and the economic burden [4]. Primary care physicians are responsible for seeing an estimated 11.3 % every month [5]. This provides an opportunity for intervention. Orzano and Scott [6], the advice of several scientific organizations on how to deal with adult obesity, was

evaluated. Patients should be educated on how to make healthy lifestyle choices, and doctors should treat obesity as a chronic, relapsing disorder, they found. The National institutes of health research Preventing Childhood Obesity: Health in the Balance suggests that doctors keep tabs on their patient's body mass index and advise them on how to lose weight based on scientific research [7].

Evaluating a person's body mass index (BMI) is a simple, cheap, and efficient way to gauge their risk of becoming overweight or obese [8]. Despite calls for greater awareness and treatment of overweight and obesity, 22.9% of obese individuals in the United States have never been identified as such [9]. Researchers have shown that despite the availability and accessibility of measuring BMI, it is often rarely used, which may explain the high percentage of undiagnosed obesity. It's fairly uncommon for doctors to say nothing to their obese patients after making the initial diagnosis. Only 27%-42% of obese people seeking medical attention for disease complications were encouraged to decrease weight, according to research [10]. Only 42% of the 12,835 obese people in national research said

they had been told to reduce weight by their healthcare professionals [10].

This research aimed to learn how often family doctors in a family medicine environment assess patients' weight and obesity, as well as how often they record their plans for treating these conditions. Documentation of patient education on body weight, diet, and activity may be found in medical records and can be used to evaluate the BMI for adults and BMI for age in children.

## OBJECTIVE

The literature review presented here aims to examine the impact of family medicine in obesity management and identify the most effective strategies for the management of obesity in primary care. Randomized controlled trials (RCTs) studies reported on family medicine interventions' impact on obesity management in children and adolescents.

- Studies that reported on the primary outcomes of weight loss, BMI reduction, and improvements in obesity-related comorbidities, including hypertension, diabetes, and dyslipidemia.
- Studies that outcomes of weight loss, a decrease in BMI, and improvements in obesity-related comorbidities were not covered by the studies.
- Studies that to discuss the results of family medicine therapies/ interventions.

They were developed to ensure that the studies included in the review were relevant to the research question and met the minimum quality standards required for inclusion in a study. These criteria were developed through the literature and consultation with experts in family medicine and obesity management.

## METHODS

The review deployed a procedure for systematic literature reviews similar to that outlined in the larger practice, with 25 family medicine physicians, was located in an urban setting, and the other, with 22 physicians, and was in a suburban setting. Both practice sites provide training for family medicine residents. The search of the literature relevant studies was expected to be found within social science and the health and life sciences. Therefore, literature searches were conducted in two databases that cover a broad spectrum of disciplines: PubMed (Ovid) and Web of Science (Web of Knowledge, Social Science Citation Index). Searches included keywords chosen on the basis of initial readings and searches.

### Data Analysis

The sample size, body mass index (BMI) measurement, and educational intensity for each patient

were all described using descriptive statistics. Patients' educational attainment and BMI categories were correlated using the 2 tests (overweight BMI, 25 or greater; obese, 30 or greater, and morbidly obese, 40 or greater). Another 2 study examined the number of persons with their BMI assessed during their good visit after the education levels were compressed to a binary variable (no documented education, any documented education). Analysis of education and weight status in children comprised "normal," "at risk for overweight," and "overweight" groups. The 2 test was also employed to examine the correlation between age and the deployment of growth charts. A correlation was deemed statistically significant if ( $P < .05$ ).

## RESULTS

The 47 included articles were the first to be reviewed. This made it easier to create a summary of the research. We first provide the findings on how people perceive body size before moving on to the findings on controlling body size. The previous year's body mass index (BMI) was obtained for 26 adult charts. Only 21% of the adults in this study had a body mass index (BMI) below 25. In this set of charts, body mass index (BMI) for age was not included for any of the children. The reported BMI-for-age data was derived from the children's height and weight measurements, which were taken for 95% of the kids. Forty-seven percent of the kids in this survey were overweight or at risk of becoming overweight. Most adults and over half of the children had BMIs that were too high, but few of the charts showed evidence of instruction or conversation about weight, food, or activity. Only 49% of patients with a BMI of 25 or higher received weight-related instruction, 50% received dietary counseling, and 41% received activity recommendations.

Patient education grew in correlation with patient weight. Patients who were obese or severely obese were provided with significantly more weight and nutrition instruction than those who were simply overweight ( $P = .029$ ). 56.4% of patients with a BMI of 30 or above received weight education, 55.3% received dietary instruction, and 45.5% received exercise education from their doctors. It was shown that exercise education had the least research regardless of BMI.

Curiously, the quantity of reported schooling was changed by the recording BMI. The BMI was recorded for 202 of the persons who were overweight, but only 105 of the adults who were obese. Patients who had their body mass index (BMI) assessed and reported in the chart were shown to have a higher likelihood of having documented education using an x2 analysis compared to patients who did not have their BMI measured ( $P < .001$ ).

Evidence of education regarding weight, food, and activity was lacking among the at-risk and overweight children in this group. None of the records showed that children were being weighed using the recommended body mass index (BMI) method for age.

Many of the charts included standard growth charts, and doctors frequently included weight percentiles, although the usage of growth charts declined as the child became younger.

**Table 1: Basic information on treatments by research study**

Study	Design and subjects	Weight loss interventions	Frequency and length of meetings	Outcomes
Edwards <i>et al.</i> , (2006) [11]	Pre- and post-treatment assessment for four consecutive treatment groups. 33 children aged 8-13 years.	Family-based behavioral treatment (FBBT) for childhood obesity in a clinical setting	12 separate, but concurrently run, parent and child group sessions, each of 1.5 h duration.	Significant reduction in overweight at 4 months (8.4% BMI), which was maintained at 3-month follow-up. Loss of overweight during treatment was not related to age, gender or initial% body mass index (BMI).
Rudolf <i>et al.</i> , (2006) [12]	94 children aged 8-16 years. WATCH IT, a community-based service for obese children with three components: frequent individual appointments for children and parents for encouragement, support, and motivational counseling, group activity sessions conducted weekly at a local sports center and group parenting sessions, once the individual appointments reduced in frequency.	Weekly meetings (30 min) plus weekly group activities (1 h) and group parenting sessions.	Significant reduction in overweight at 6 months, especially for older children and girls.	
Kalavainen <i>et al.</i> , (2007) [13]	Randomized control trial. 70 children (aged 7-9 years) randomized either to routine counseling (two appointments for children) or to family-based group treatment (15 separate sessions for parents and children).	Family-based group sessions included nutrition education, physical activity education and behavioral therapy.	Routine counseling: 2 appointments (30 min.) for children. Family-based group treatment: 15 separate sessions (90 min.) for parents and children.	Children attending the group treatment lost more weight for height (6.8%) than children receiving routine counseling (1.8%). The respective decreases in BMI were 0.8 vs. 0.0 and in BMI-SDS 0.3 vs. 0.2.
McCallum <i>et al.</i> , (2007) [14]	Randomized controlled trial Children aged 5-9 years 11 months (82 in intervention, 81 controls)	The LEAP (Live, Eat and Play) trial: brief family-based primary care intervention for childhood overweight/mild obesity. GP consultations targeted change in nutrition, physical activity and sedentary behavior, supported by purpose-designed family materials	4 meetings over 12 weeks	No sustained improvement in BMI. Parents in the intervention group reported a sustained improvement in child nutrition score.

Study	Design and subjects	Weight loss interventions	Frequency and length of meetings	Outcomes
Vignolo <i>et al.</i> , (2007) [15]	Longitudinal observational clinical study. 5-year follow-up. 31 children, 13 boys and 18 girls, 6-12 years of age on admission.	The MI PIACE PIACERMI program, a hospital-based program, through outpatient activities. The program employs three fundamental strategies: cognitive-behavioral techniques to develop self-control, nutritional education and promotion of physical activity in daily living, setting a high value on free play in motion.	9 weekly group meetings (2h) and 8 follow-up visits	Significant BMI-SDS reduction. Decrease in waist circumference. Significant improvement in family habits. Significant reduction in total energy intake. Emotional and social aspects of obesity-related behaviors showed positive changes. Motor skills globally improved.

*Intervention group demonstrated a significantly greater reduction in BMI than children in the control group.*

**Table 2: The ratio of Medical Records Including Standardized Growth Charts for Young adults**

Age Group	N	Number with Percentage
2 to 5 years	41	41 (100%)
6 to 10 years	29	27 (93%)
11 to 14 years	33	20 (61%)
15 to 18 years	45	15 (33%)

## DISCUSSION

The most significant and useful conclusion was that when professionals document their patients' body mass index (BMI), they are more likely to record their discussions with patients about diet and exercise. With this statistical data, the medical professional may be reminded to deliver and document weight-related counselling if the staff is trained to measure height and weight and calculate BMI. Primary care professionals, in order to help reverse the present trend of obesity in the United States, need to not only diagnose and document obesity but also treat it as a chronic condition by educating patients about weight, nutrition, and activity. Of the obese patients in the current study, 56.4% were given weight documentation, 55.3% were given dietary guidance, and only 45.9% were told to exercise [9].

Similar results were seen in a nationwide survey of weight management practices, in which 35.5% of obese patients were given weight reduction counseling, 32.8% were given exercise advice, and 41.5% were given dietary guidance. 65.1% of patients in a more recent study were given information about the advantages of weight loss, 36.6% were given explicit weight-control counsel, and 28.2% were told to increase physical activity. In line with prior studies, this one indicated that doctors are more likely to provide dietary advice than physical activity advice [16].

It appears that primary care physicians are failing to fully take advantage of preventative care appointments with their patients. It has been shown that people desire their primary care physicians to assist them more with weight control [17]. Recently, Bish *et al.*, individuals who reported receiving medical advice to reduce weight during a normal physical exam in the preceding year were much more likely to make an effort to lose weight than adults who had a checkup but did not get such advice [18].

The study also found that children were less likely to get information about weight, nutrition, and exercise since their body mass index (BMI) was not monitored for their age. For children under the age of ten, growth charts were a common tool for keeping track of their size without ever recording their body mass index relative to their chronological age. Unfortunately, growth charts were used much less frequently beyond age 10. Unfortunately, these teenagers were not being monitored using body mass index (BMI) for age or growth charts, even though this is a crucial time for the development of overweight [19].

This constraint may lead to an underestimation of the quantity of information offered because the education evaluation was dependent on the physician record entry. Classes were likely held, but no records were kept. However, these checkups were business as usual. A strategy to address weight, food, or exercise

would be impossible to implement and monitor without records of the information given.

## CONCLUSIONS

This review points out the main tendencies, discrepancies, contradictions and problems. These findings suggest that primary care physicians should make obesity control a top priority. Patients in all BMI categories should receive weight-related information, including counselling and tailored programs, to encourage healthy lifestyle choices and avoid additional weight gain. Medical experts could send patients to nutritionists or fitness trainers for more advanced care. More study is needed to see if providing patients with weight-related information during regular doctor visits improves their chances of reaching and maintaining a healthy weight.

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