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ORIGINAL ARTICLE

Can our residents carry the weight of the obesity crisis? A mixed methods study

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Summary
Background: Obesity is a worldwide problem and has reached epidemic proportions in the Middle East. Although physicians are in a unique position to counsel and treat their obese patients, little is known about healthcare provider management of obesity in this region of the world. The purpose of this study is to assess resident physician diagnosis and management of obese patients, and barriers to obesity management in the United Arab Emirates.
Methods: We conducted a retrospective medical records review of an internal medicine resident clinic in an academic medical centre in the UAE. A focus group was then held with a convenience sample of 20 Internal Medicine residents. Questions were aimed at understanding barriers to obesity diagnosis and management. Focus group discussions were analysed using qualitative thematic analysis.
Results: Of 155 patients seen in resident clinic in 2012 and 2013 (representing 766 patient encounters), 50 (32%) met the criteria for overweight, and 102 (66%) met the criteria for obesity. Despite the high prevalence, only 9% had documentation of BMI or obesity in their medical record. Six percent were offered diet or exercise advice, and 6% were referred to a dietician. Focus group results indicated residents had sufficient knowledge, but lacked training in obesity management and adequate time for counselling. Weight biases and feelings of incompetence may exist among our trainees.

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Conclusion: Obesity is under-recognised and under-treated by our residents. The findings confirm that a significant gap exists between optimal obesity management recommendations and the current practices of our trainees.

Background

Once considered a disease exclusive to rich and developed countries, obesity has become a worldwide epidemic [1], and ranks as the second leading cause of preventable death in developing countries [2]. Although obesity is a global health concern, the majority of published literature focuses on Western physician behaviours and practices. In the Arab world, and particularly across the Middle East, the prevalence of obesity ranks amongst the highest in the world [3]. In addition to the dietary, social and lifestyle contributors, cultural factors unique to the Arab world may be important drivers of this epidemic. For instance, the traditional loose dress in many Arab countries hides extra weight and may decrease motivation to diet [4]. Also, participation in outdoor or physical activity may be discouraged or limited due to social barriers, especially for women [5]. The literature also suggests that perceptions about body size norms and aesthetic standards may be different than in Western society, with several studies showing a preference for larger body shapes in the Middle East [6].

In the United Arab Emirates (UAE), as in most of the Arab world, the prevalence of obesity has risen sharply over the past several decades. The UAE currently ranks as the fifth most obese nation in the world, with 67% of Emirati men and 72% of Emirati women overweight or obese [7]. As statistical models predict increasing obesity incidence and prevalence in the Middle East over the next decade [8], future generations of UAE physicians must be prepared to manage this obesity crisis. However, little is known about healthcare provider management of obesity in this region of the world. To our knowledge, there are no published studies regarding resident physician management of obesity or their level of training or attitudes towards obese patients in the Arab world. The purpose of this study is to assess resident physician diagnosis and management practices of obese patients in a general medicine resident clinic in an academic medical centre in the UAE.

Methods

A retrospective medical records review of all patients seen in an Internal Medicine resident clinic in Abu Dhabi, UAE in 2012 and 2013 was performed. The clinic serves a diverse and multiethnic population of patients from all socioeconomic statuses. Patients are referred to the resident clinic from multiple settings, including primary health clinics, emergency and urgent care centres, and inpatient wards. The clinic operates two afternoons each week and is staffed by approximately twenty Internal Medicine residents, who are supervised by an academic general internist.

At the beginning of each office visit, trained nurses measure each patient's weight using a standardised and calibrated digital scale (with patient clothed) and height using a stadiometre. Body mass index (BMI) is calculated by the electronic record system using the standard formula of weight in kilograms divided by the square of height in metres (kg/m^2) and is documented as part of every patient's vital signs. The World Health Organization International Classification of adult overweight and obesity according to BMI was used for study enrolment [9]. Accordingly, patients were included in the study if they were classified as overweight ($BMI \geq 25$) or obese ($BMI \geq 30$), and if they had one or more visits during this time period for health maintenance or chronic disease management, and not for urgent care or acute illness.

An electronic medical record search was performed independently by two trained physicians unblinded to the study questions. The probability sampling method was adopted using body mass index as the query on the clinic's electronic medical record system. For patients who met the study definition of obesity, demographic data and information regarding comorbidities were collected. Documentation of obesity was considered to be present if the terms ''obesity'', ''overweight'', ''weight'' or ''BMI'' were recorded in the patient's past medical history, physical exam, problem list, assessment or management plan. The presence and type of obesity management, including dietary or exercise advice, referral to a dietician or bariatric surgeon, or prescription of weight loss medications, were also assessed. The data was imported into SPSS and Fisher's exact test was performed for analytic comparisons.

A focus group was then held with 20 Internal Medicine residents in January 2014. Convenience sampling was adopted for the focus group.