

Original Article

Audit of the diagnosis and management of adult obesity in a Maltese general practice

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Abstract

Obesity is an escalating health problem all over the world. Unfortunately, Malta lies on the upper end of the spectrum of mean population BMI (body-mass index). Family doctors are well placed to identify cases of obesity and offer health education, medication, follow-up and referral when necessary to help their clients lose weight. They can also help prevent obesity and its complications. The authors, who work in the southern harbour area of Malta, carried out an audit of the diagnosis and management of adult obesity within their Group Practice during the year 2010. The performance of the Practice vis-à-vis obesity in adults is compared to the standards set by the European Practice Guidelines for the Management of Obesity (2008), and recommendations made.

Keywords

Obesity; adult; general practice; diagnosis; management

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Introduction

The prevalence of obesity and overweight

Obesity is a global epidemic that constitutes one of the biggest current health problems.¹ In the European region, obesity presents an unprecedented and underestimated public health challenge, with its prevalence rising sharply. In 2010 it was estimated to affect 150 million adults and 15 million children in Europe.²

Malta has an alarming obesity problem. The 2008 Health Interview Survey (HIS) randomly selected 5500 adults resident in Malta and asked them to write down their height and weight. The body mass index (BMI) was calculated from these data (BMI=weight in kg/ square of height in metres). Approximately 22% of the sample was found to be obese (BMI>30kg/m²). A further 36% were overweight (BMI>25kg/m²). Indeed, Malta ranks as the country with the highest percentage of obese men and the third highest female obesity within the EU.³ The southern harbour region, where the authors work, is the second highest region in Malta for mean population BMI (27.96kg/m²).⁴

The picture amongst children is similarly bleak. The Health Behaviour in School Children (HBSC) survey is a WHO initiative that assesses the health and lifestyle of children aged 11, 13 and 15 years in 41 countries. In the 2006 study, Malta had the second highest proportion of obese or overweight children amongst 11, 13 and 15 year olds. In all three age groups, between 28% and 31% of children had a calculated BMI greater than 25kg/m².⁵

The importance of obesity

Overweight and obesity account for about 80% of cases of type 2 diabetes, 35% of ischaemic heart disease and 55% of hypertensive disease in Europe.⁶ In addition, obesity increases the risk for various cancers (breast, ovaries, colon, prostate), gallstones, non-alcoholic steatohepatitis, gastro-oesophageal reflux disease, obstructive sleep apnoea, need for long-term medication, impaired fertility, asthma, cataracts, benign prostatic hypertrophy, and various musculoskeletal disorders. Social stigma is another consequence of obesity and the condition has been linked to bullying, anxiety and depression.⁷ Also, many obesity-related health conditions once thought to be applicable only to adults are now being seen among children with increasing frequency.⁶ Overweight and obesity cause more than one million deaths and twelve million life years of ill health each year. It is estimated that one in thirteen annual deaths in the EU is likely to be related to excess weight.⁷

Data from a number of studies have shown that modest weight loss of up to 10% of body weight improves glycaemic control, reduces blood pressure, reduces cholesterol levels, and even mortality.⁸

Obesity imposes an economic burden on society through increased direct medical costs to treat the diseases associated with it and lost productivity due to absenteeism and premature death (indirect costs). In the European Region, the direct health care costs of obesity account for up to four percent of national health expenditure. The indirect costs could amount to twice that figure.⁶ Grech estimated that the annual cost of obesity in Malta reaches up to €78 million.⁹

EU practice guidelines for the management of obesity

European guidelines on the management of obesity in adults were developed in 2008 by the working group of the European Obesity Management Task Force of the European Association for the Study of Obesity.¹⁰ Their aim was to address the need for evidence-based recommendations for the management of obesity at the individual level and to establish a basis for a more uniform approach across Europe by providing physicians with essential elements of good clinical practice. The recommended algorithm for the management of obesity is summarised in Figure 1.

General Practitioner Group practice in the town of Zabbar

The authors have been working as private family doctors in the southern harbour area for the last twelve years in a Group Practice. GP trainees are also regularly attached to their Practice. The authors conducted an audit on the diagnosis and management of obesity in adults within their Group Practice during the year 2010.

The Practice uses the TransHis database developed by the University of Amsterdam to record all data related to patient encounters.¹¹ The database incorporates the International Classification of Primary Care-2-Revised (ICPC2-R) to code for medical diagnoses.¹² During domiciliary visits, handwritten notes are taken by the GP, who then inputs them into the database at the earliest opportunity.

Method

The authors searched the database for all encounters of adult clients (over 18 years of age) who had a diagnosis of obesity made or confirmed during 2010, thus reflecting the prevalence of the condition. Obesity is defined by the World Health Organization as a Body Mass Index greater than 30kg/m².¹ Patients with an ICPC-2 code for obesity (T82) were included in the study, whereas those who were overweight (BMI 25-30kg/m²; code T83) were excluded.¹² The GP clinics are equipped with calibrated SECA™ person scales, wall-mounted height measurement tapes and measuring tapes.

The medical record of each client was scanned to manually extract data about the reason for the encounter, the intermediate interventions undertaken by the GP (e.g. physical examination; health advice) and any resultant interventions performed (e.g. blood test; prescription; referral; follow-up).

Results

During 2010, 1894 adult clients (1006 females; 888 males) were seen at least once by the practice doctors. Of these, 86 clients (4.5%) were diagnosed with obesity. In 74 of the 86 cases that were diagnosed as obese, it was the GP who initiated discussion on the topic. Regrettably, only 38 of clients diagnosed as obese (44.1%) had their BMI calculated, and in two of these the BMI was less than 30kg/m². Another 14 clients (16.3%) only had their weight measured. Waist circumference was measured in just one case. On the other hand, the blood pressure of 47 (54.5%) of patients was measured in the same encounter.

As regards the management of obesity, 48 (55.8%) clients were given health advice (not specified), 17 (19.8%) clients had a blood test done and three (3.5%) clients were prescribed orlistat. Three clients were referred to a dietician (3.5%). None were referred to a physiotherapist or surgeon. Forty-six clients (53.5%) were offered follow-up.

Discussion

This audit study is the first of its kind to be done in Malta. It attempted to give a picture of the everyday diagnosis and management of adult clients in General Practice.

From the results it can be seen that the performance of the Group Practice falls far short of the standards set by the European Practice Guidelines for the Management of Obesity. Although in most cases it was the family doctor who started the discussion about obesity, only 4.5% of total adult clients had a recorded diagnosis. This percentage falls far below the national population average of 22%, indicating that many cases of obesity in the Practice are being either missed or ignored. It is also possible that in a ten-minute consultation covering multiple problems, the issue of obesity is sometimes peripheral in the doctor's attention and may not have been recorded in the notes, although it may have been addressed superficially. Dedicated obesity clinics in Primary Care would help GPs to focus more attention on this serious chronic condition.

Up to 40% of the clients who were diagnosed as being obese did not have their parameters measured, or else they were not recorded. Simple measurements of weight, height and waist circumference take only a few minutes to take, and they provide a precious baseline for management and follow-up. Waist circumference correlates directly with visceral fat and is very useful in muscular subjects, where a high BMI may be misleading.¹³

Weighing all clients routinely would also make it easier for the GP to broach the subject in an opportunistic manner. Body measurements help to convince clients that they have a health

Clinical care pathway for overweight and obese adults

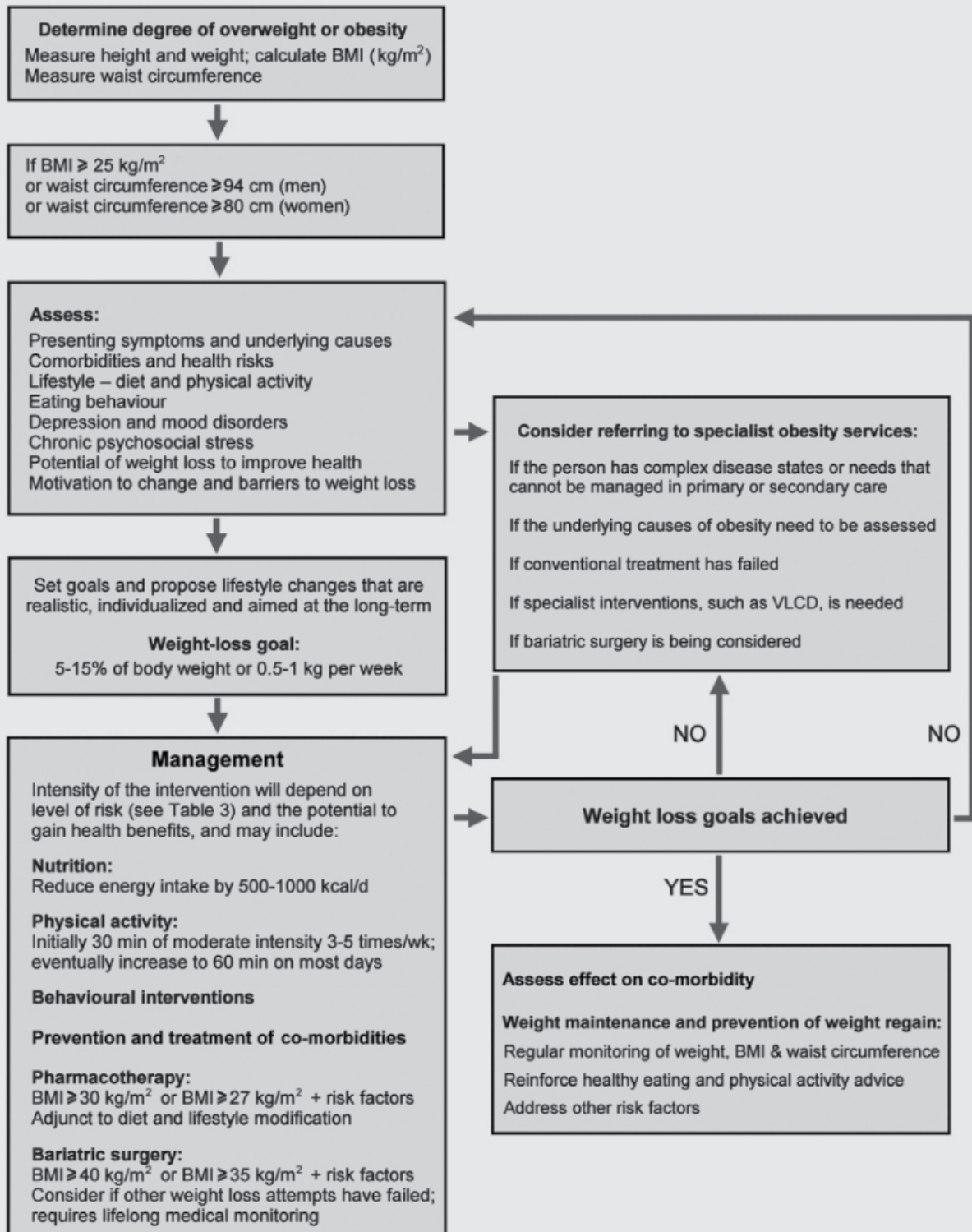


Figure 1: European Practice Guideline algorithm for the management of obesity (EASO, 2008).¹⁰

problem they need to tackle. Many obese people are often in denial of their condition or they do not perceive it as serious enough to warrant attention.¹⁴

Limitations

This study is based on data that are inputted routinely by family doctors during their everyday work. In reality, some consultations may have not been recorded or the data may be incomplete, thus giving a distorted picture of actual practice.

Other limitations of this study include the fact that only adults were included, and that the health advice given to obese clients was not specified. Ideally, such advice should be evidence-based and in line with the National Strategy for the Prevention of Non-communicable Disease.¹⁵ Likewise, the study did not investigate the types of blood tests that were ordered for these clients. Further research may elucidate whether GP behaviour is affected by the patient's gender or by the degree of obesity present. More research may also look into the management of co-existent chronic disease.

Audit cycle

The results of this audit highlighted the fact that management of obesity is not up to European standard in this Group Practice, and that educational needs should be addressed. The results were divulged to the other partners and their trainees, and the European Practice Guidelines were discussed in detail. It was agreed that all the doctors shall make a stronger effort to follow these guidelines and input all relevant data into patient records. This audit process shall then be repeated next year to assess whether any progress is evident, and so bring the audit full circle.

Conclusions and recommendations

This study demonstrates that the diagnosis and management of obesity in adults is suboptimal in this Group Practice, and measures shall be taken within the Practice to improve the situation.

GP education

GPs' educational needs in relation to obesity should be addressed. On a national scale, the authors suggest that the Malta College of Family Doctors and the Department of Primary Health Care team up together to provide high quality educational activities about the prevention, diagnosis and management of obesity for all local GPs and GP trainees. Ideally, such teaching should take place in a multidisciplinary milieu, with the participation of other medical specialists, nurses, nutritionists/dieticians, exercise therapists and psychologists.

Patient registration and GP support

The National Strategy for the Prevention of Non-communicable Disease aims to "involve general practitioners in the community in obesity prevention efforts" and "to establish a robust referral system to ongoing programmes."¹⁵ There are socio-political factors that influence the management of

obesity, and these are related to the state of Primary Health Care in Malta at present. Unfortunately, there is no official patient registration in Malta yet, so clients often shop around GPs. Such a set-up is not conducive towards stable patient-doctor relationships, and family doctors cannot identify their patient population precisely. The current situation makes health promotion, disease prevention and screening rather haphazard and fragmented. This is one of the many reasons why an urgent reform of Primary Health Care is desirable. Another limitation is that, to the authors' knowledge, no primary care nurses work directly with private family doctors in Malta. The introduction of patient registration, financial assistance to employ nurses, and recall systems would better equip GPs to consolidate their contribution in the fight against obesity.

Obesity clinics

Obesity is best approached as a chronic relapsing disease, and as such its management should be structured, comprehensive and sustained in time.¹⁶ Indeed, the National Strategy for the Prevention of Non-communicable Disease aims "to provide schemes that enable appropriate management for the obese as early as possible to avoid co-morbidities."¹⁵

Regrettably, formal multidisciplinary obesity clinics are lacking in Malta, even in Secondary Care. The availability of bariatric surgery is also limited in the National Health Service. Improved services in these areas, together with established referral protocols would greatly facilitate referral of problem cases by family doctors and proper management. The desired end result is a longer and healthier life for the expanding multitude of obese Maltese.

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Table 1: Evidence-based recommendations for the management of adult obesity from the Scottish Intercollegiate Guidelines Network (SIGN) Guideline No. 115.¹⁷

Recommendation	Grade of evidence
BMI should be used to classify overweight or obesity in adults.	B
Waist circumference may be used, in addition to BMI, to refine assessment of risk of obesity-related comorbidities.	C
Individuals consulting about weight management should be advised to reduce: intake of energy-dense foods (<i>including foods containing animal fats, other high fat foods, confectionery and sugary drinks</i>) by selecting low energy-dense foods instead (<i>for example wholegrains, cereals, fruits, vegetables and salads</i>) consumption of 'fast foods' (<i>eg 'take-aways'</i>) alcohol intake	B
Individuals consulting about weight management should be encouraged to be physically active and reduce sedentary behaviour, including television watching.	B
Adults consulting about weight management should be encouraged to undertake regular self weighing.	B
Healthcare professionals should discuss willingness to change with patients and then target weight loss interventions according to patient willingness around each component of behaviour required for weight loss, eg specific dietary and/or activity changes.	D
Dietary interventions for weight loss should be calculated to produce a 600 kcal/day energy deficit. Programmes should be tailored to the dietary preferences of the individual patient.	A
Overweight and obese individuals should be prescribed a volume of physical activity equal to approximately 1,800-2,500 kcal/week. This corresponds to approximately 225-300 min/week of moderate intensity physical activity (<i>which may be achieved through five sessions of 45-60 minutes per week, or lesser amounts of vigorous physical activity</i>).	B
Individual or group based psychological interventions should be included in weight management programmes.	A
Orlistat should be considered as an adjunct to lifestyle interventions in the management of weight loss. Patients with BMI ≥ 28 kg/m ² (<i>with comorbidities</i>) or BMI ≥ 30 kg/m ² should be considered on an individual case basis following assessment of risk and benefit.	A
Bariatric surgery should be considered on an individual case basis following assessment of risk/benefit in patients who fulfil the following criteria: BMI ≥ 35 kg/m ² presence of one or more severe comorbidities which are expected to improve significantly with weight reduction (<i>eg severe mobility problems, arthritis, type 2 diabetes</i>).	C