

Obesity Management in the Pharmacy

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Introduction

Obesity is a major public health concern and has been described by the World Health Organisation (WHO) as a global epidemic. Currently it is the leading cause of premature death worldwide and is associated with numerous chronic health conditions. Obesity is defined as an abnormal accumulation of body fat, usually 20 percent or more over an individual's ideal body weight (Caballero, 2007). This occurs when a person takes in more energy from food and drink than what they burn off from physical exercise.

Obesity Epidemiology

Obesity prevalence rates vary dramatically from country to country. The current global obesity epidemic is represented by more than 1.6 billion overweight adults, 400 million of which are classified as clinically obese (Bessesen, 2008). While global obesity prevalence is rising significantly, it is considerably higher in economically developed countries. This is perhaps the result of an environment characterised by readily available, inexpensive, high-fat foods, combined with the lack of physical activity. However a more alarming statistic is the rapid emergence in childhood obesity. Current figures indicate that an estimated 110 million children worldwide are thought to be obese or overweight, of which 22 million are under the age of 5 (Lobstein, 2004).

Measurement of Obesity in Adults and Children

Obesity is defined by the National Institutes of Health as having a BMI of 30 and above, where the weight in kilograms is divided by the height in metres squared (Haslam and James, 2005). An individual is considered healthy if their BMI is between 18.5-24.9, overweight if their BMI is between 25-29.9 and obese if their BMI is greater than 30. A BMI of 40 or greater is considered morbidly obese. While BMI is currently the most commonly used indicator of obesity, it is not free of limitations. There is no distinction between fat mass and lean mass which leads to an inaccurate indication of body fat in muscular individuals. In addition, older adults may seem to have a desirable BMI despite having excess fat and reduced muscle mass. In spite of these drawbacks, BMI can be a trustworthy and legitimate measure for detecting individuals at

increased risk of obesity-related co-morbidity and mortality. Possibly a more appropriate measure of obesity in adults is waist circumference. This measures the level of adiposity around the central region. Central adiposity creates more detrimental health consequences than lower body adiposity. High risk waist circumference measurements are 102cm for men and 88cm for women. They dictate a high proportion of abdominal obesity and correspond to an increased risk of obesity-related health problems (Lean et al., 1995).

Childhood or adolescent obesity is however, more complicated, as weight changes with height, and BMI varies with age and gender. Therefore, the weight status of children (aged 2-12) and adolescents/teenagers (aged 13-19) is measured with reference to gender-specific growth charts developed by the Centers for Disease Control (Han et al., 2010). After the BMI number is determined it is plotted against either boys or girls growth charts to obtain a percentile ranking. The percentile indicates the relative position of the child's weight among children of the same age and sex.

Obesity Management and Education

Obesity is on the rise globally and while the causes of obesity are diverse, it is mainly underpinned by what are now entrenched societal norms. Changing these learned behaviours is a difficult task, however using proper health education strategies, plainly spelling out the health risks associated with being overweight or being obese, and also highlighting those nutritional and lifestyle patterns which are most conducive to weight gain, needs to be adopted. While some attempts have been made by government agencies to provide nutritional information on food packaging the vast majority of people cannot interpret the information. Therefore more needs to be done to provide a greater focus for educating people about the dangers of overeating.

Patient education programmes, such as anti-smoking advertising campaigns have demonstrated, can play a very successful role in raising awareness of the risks associated with certain behaviours. However, educating the public is a much bigger task and more difficult to control. For

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example, it has been known for a long time that eating a high calorific diet promotes weight gain. Clearly this knowledge is having no impact as obesity levels worldwide continue to rise. While we must accept that individuals have the right to choose what they eat, it is important to understand the role health education plays in enabling them to do so. Therefore, health education must be supported by a wider range of measures designed to remove the key barriers to choosing a healthy diet. Efforts, not solely based on informing choice, but environmental factors which will make healthy choices easier to make, must be adopted of which the pharmacist plays a key role.

Pharmacists are the most easily accessible healthcare professionals and are increasingly being utilised by patients seeking help and advice about weight loss and obesity management. Pharmacists as medicines experts, offer a unique perspective in obesity management. Firstly, pharmacists are in regular contact with 'at risk' patients, such as those suffering with diabetes mellitus or cardiovascular disease. Secondly they can assist with decision making regarding personalised weight loss routines complementary to medication the patient may already be taking, and thirdly ensure dedication to regimes which increase compliance and support for changes in lifestyle. In addition, pharmacists play a critical role in advising overweight or obese individuals on the dangers of improper use of the growing numbers of self prescribed products promising 'quick fix' and fast weight loss. One issue of great importance is being able to communicate about the sensitive nature of a person's weight, that most overweight or obese patient's experience. It is

therefore important that undergraduate pharmacy programmes are designed to effectively equip students with the knowledge and skills set to conduct a brief intervention. This allows the pharmacist to offer opportunistic advice, discussion, negotiation and encouragement to the patient in order for them to become healthier. Complementary to these approaches there needs to be increased availability to material that provides credible focused patient education in the form of health information leaflets, easy to use, easy to find health information websites or indeed using smart technology on cellular phones.

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