

# Helping patients in Uganda overcome weight gain and obesity using motivational interviewing

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## Introduction

Obesity is one of the fastest growing health problems in Uganda and across the world and its rising prevalence is placing additional strain on medical resources. At its simplest level obesity is a consequence of unhealthy lifestyles. Preventing its spread in Uganda will rest on the ability of society to motivate individuals to make positive healthy choices in their daily lives and many of the same techniques may be applicable to the situation in South Sudan.

In response to the upward obesity trend UN member countries have initiated a 2013-2020 action plan to limit and treat the complications of cardiovascular disease, diabetes and the anticipated rise in obesity-related cancers across the world. The plan recognises the increased global burden of non-communicable diseases and identifies four main obesity-related objectives [1].

1. To reduce the risk factors for non-communicable diseases that stem from unhealthy diets and physical inactivity.
2. To increase overall awareness and understanding.
3. To encourage the development of global, national, regional and community policies to improve diets and increase levels of physical activity.
4. To monitor scientific data and key influences on diet and physical activity.

This commitment has encouraged large-scale investment in educational programmes, economic policy proposals and industry self-regulation. Many national governments are discussing the introduction of taxes for fatty foods and pressuring the private sector producers to decrease the quantity of fats and trans-fats in their products [2]. Despite the extent of the problem and early commitments little has actually been done yet, particularly in lower and middle-income countries. As a consequence it falls to practicing doctors and clinicians to help prevent the spread of the disease and to manage individual patients with obesity. Aside from avoiding complications with the use of pharmaceutical interventions the best improvements come with successful lifestyle change but this can be extremely difficult - whether in Uganda or elsewhere in

the world.

Motivational interviewing (MI) is a goal oriented style of counseling that aims to harness the patient's internal motivation to change and has gained a body of evidence for its efficacy. It has been widely applied cross-culturally for a variety of problems including addiction, chronic disease and obesity. A few training programmes have been set up in Uganda [3]. In Africa more broadly the technique has been experimentally effective in improving compliance with HIV medication, in coping with chronic disease and in mosquito bed net uptake [4]. The technique originated in America where it was found to be an effective way to enhance the motivation to change in patients suffering from alcohol dependence.

## Epidemiology

Starting in high-income countries in the 1970's urbanization, changes in diet and increasingly sedentary lives conspired to initiate the epidemic that has since spread to middle and lower income countries [5]. In 2008, the worldwide prevalence of obesity was estimated to be 502 million, whilst 1.46 billion were estimated to be overweight, including 170 million children [6]. In Uganda the WHO estimated in 2010 that roughly 20% of the population were overweight and between 3.8 -5.0% were obese [7]. Another study of obesity in Uganda found 4.4% of individuals in Kampala in a sample of 683 were obese and also discovered that the rates were far higher in women than in men [8].

## Complications of obesity

Obesity is caused by an excess energy intake over energy output [9]. This simple definition hides a complex aetiology whereby genetic predispositions, epigenetics, early life development and behaviours determine the expression of the obese phenotype. Obesity is also "the normal response, by normal people, to abnormal conditions" and in this regard one can consider the modern urban environment to be the abnormality [10].

It is possible to live for many years with obesity but it depends greatly on the severity as to the effects it has on the patient. In more severe cases quality of life is significantly reduced due to difficulties with mobility, pressure sores,

infections, deteriorating vision, painful and uncomfortable oedema and a disabling reduction in the general fitness required to partake in the social activities of daily life. The longer an individual remains obese the greater the likelihood of deterioration in cardiovascular function due to the build up of atherosclerotic plaques, proliferative microvascular changes and a pro-inflammatory state. If these insidious changes are not rectified the patient risks chronic kidney disease and peripheral and coronary artery disease amongst other things [11].

Beyond a certain point the complications of obesity may become irreversible, as with the case of diabetes or coronary artery disease, and pharmaceutical or surgical management in addition to advice on lifestyle changes may be necessary. Of course, in less severe cases lifestyle change may be all that is necessary [12].

**Management of obesity**

Little can be done currently about the genetic predispositions of individuals although it may be possible sometime in the future. Likewise epigenetic changes and early life development are not factors that can be reversed once they have occurred. For obese adults with related complications a number of pharmaceuticals can help limit the risks of future adverse events. Anti-hypertensives, statins and hypoglycaemics can decrease the lifelong risks associated with high blood pressure, high cholesterol and hyperglycaemia but this may prove expensive and difficult to maintain and does not address the underlying causes [12]. Surgery can also help with procedures such as the gastric band but as always there are risks associated. The best treatment will always combine these solutions with support to change behaviour.

**Motivational Interviewing (MI)**

MI is one possible solution that can help obese patients change their lifestyle and has been used in Uganda and across Africa and the rest of the world for numerous lifestyle/behaviour change interventions[13]. It is a form of focused counseling developed by clinical psychologists Prof W.R. Miller and Prof S. Rollnick and can be undertaken by a trained practitioner in a short 10-minute interview [14]. It was originally developed from clinical experience with alcohol dependence and describes a method to help patients change their behaviour through developing their personal motivations and overcoming ambivalence.

MI appears to work well across different cultures and it has now been adapted to assist patients to change behaviours related to obesity by focusing on cutting down on alcohol intake, stopping smoking, eating healthy food and exercising regularly. A meta-analysis of motivational

interviewing in obesity showed a significant reduction in body mass compared to the controls of the order of 1.5kg [15] across eleven studies. In this regard, MI seems to have a useful place in enhancing the weight loss efforts of individuals and could make a significant difference to quality of life. The technique is being encouraged within the British National Health Service (NHS) and has been taught to medical students in their clinical years across the UK. Although currently used only for certain conditions in the NHS it may be used more widely in the future and its adoption elsewhere in the world may be beneficial.

Traditional forms of counseling are non-directive and client led, meaning that the therapist encourages the patient to explore their thoughts and feelings and does not set an agenda. MI differs because the therapist directs the client strategically to consider how willing they are to change on a particular subject. The therapist is, in many ways, searching for and questioning ambivalence on a given topic.

In order for a doctor, or any other health professional, to become a successful motivational interviewer they advise the practitioner to develop four skills [16]:

- The ability ask open ended questions
- The ability to provide affirmations
- Capacity for reflective listening
- Provide summary statements

As an example, a patient could be guided through the interview using a table such as the one below. Examples of useful questions might be, “would you like to see a difference in your current situation?” or “if you changed how do you imagine your life might be better?”

It is also essential that the practitioner develop these skills in the context of a non-confrontational, non-judgmental and non-adversarial manner and with warmth and genuine empathy. The counseling is focused on identifying the patient’s values and motivations and exploring any discrepancy between the patient’s life as it is and the way

**Table 1. Example of Motivational Interviewing**  
(From <http://spectrum.diabetesjournals.org/>)

| Thinking about the costs and benefits of change<br>What specific behavior change are you considering?.....                                  |               |                        |
|---|---------------|------------------------|
|   | STAY THE SAME | MAKE SOME IMPROVEMENTS |
| Benefits  | I like:       | I will like:           |
| Costs   | I don't like: | I won't like:          |
| Create some ideas and reflections for each of the four boxes above. This will help to clarify your thoughts about what you want to do next. |               |                        |

they would like it to be. Since first being developed as a method to try and help patients with alcohol dependence MI has been revised and applied increasingly to health problems caused or exacerbated by habitual behaviours or ambivalence.

Motivational interviewing was so well received by those around the world interested in behaviour change that it initially spread before any meaningful evidence had been collected. Rollnick, one of the founders of the technique, has suggested that this is because MI is just the formalization of techniques and intuition that clinicians have used for hundreds of years, and to a certain extent we perhaps all use in helping one another in daily life. Another likely reason for its early and fast adoption is the lack of good alternatives. Techniques such as behavioural therapy require specialist training, whilst other methods, such as education and awareness raising take time to successfully make changes in society. Of course, MI does not always work, and is not a panacea. It depends on the patients' wishes and practitioners ability but where a desire for change exists it can be a powerful way of enhancing it.

## Conclusion

Obesity is one of the fastest growing health problems in the world and its rise will be difficult to stop. Global efforts to fight the rise have currently concentrated on large-scale education and awareness raising programmes, changes to government policy and the law and the involvement of the food industry and civil society. Unfortunately, little has yet been done in large parts of the world to make any observable change.

In Uganda rates of obesity are also rising and one of the most difficult tasks in treatment is helping individuals to change their behaviour. There are only a few successful strategies that doctors can adopt and one of the most promising is MI. MI has an increasing evidence base for efficacy in obesity and it appears to work well in different cultures. It is also inexpensive to learn and can be undertaken in a short 10 minute interview. As an additional tool for doctors in Uganda it could prove beneficial alongside the more traditional pharmaceutical treatments.

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