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Literature Review on Behavioural Approaches to Support Dietetic Practice in the Treatment of Obesity

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Author's contribution

The sole author designed, analyzed and interpreted and prepared the manuscript.

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ABSTRACT

There is a global agreement that obesity is become as one of the most serious public health problems of this century.
This paper summarises and discusses the evidence for the use of different behavioral approaches, interventions and counseling skills in dietetic practice in the management of obesity.
Behavior change therapy in obesity treatment is not only assisting people to take their decision to change, it is helping them to find ways to change. Therefore the health care provider especially dietitian should have the appropriate training and counseling skills to helping people to achieve their goals to lose weight.

Keywords: Obesity; behavioural change; counselling skills; stages of change; helping process.

1. INTRODUCTION

Obesity is a medical condition that has an adverse effect on both the health of the individuals and on society, and is considered to be one of the most serious public health problems of this century [1].

There is global agreement that obesity is a major risk factor for illnesses and diseases such as

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cardiovascular disease (CVD), diabetes mellitus (DM), dyslipidemia, hypertension and several cancers [2].

The prevalence of obesity in the United Kingdom has increased significantly over the past two decades, recording the highest rate in Europe as about 20% of the population is obese. The cost of obesity tackling was estimated more than £3 billion a year [3].

Obesity statistics in England indicate that the expense of National Health Service (NHS) on obesity problem will double in the next four decades. Recently, the treatment and prevention of obesity has become a major target for health policy makers in the UK [4].

The primary management of obesity consists of a diet regime and physical activity with behavioural change. This healthy life style intervention can decrease weight by up to 10% [5].

In 2006, The National Institute for Health and Clinical Excellence issued the first national guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children in England and Wales, based on the results of the available evidence in this area [6]. The NICE guidelines aim to address the problem of obesity and its consequences through the activation of interventions and improving the role of primary health care in combating obesity in adults and children [6]. The NICE guidelines indicate that behavioural change strategies must be used to activate the lifestyle interventions and weight management programmes in adult and children [6].

To conduct this research, a literature review was conducted by the author with regard to PubMed journals from 1990 to the present day with regard to Behavioral approaches in obesity management. Manual literature searches and reviews were also undertaken. Inclusion criteria include research involving human beings, in the English language and with regard to the latest findings (not before 2000). Keywords include, Obesity, Behavioural approaches, behavioural change, Counselling skills, stages of change, helping process.

This paper summarises and discusses the evidence for the use of different behavioural approaches, interventions and counselling skills in dietetic practice in the management of obesity.

2. IMPLICATIONS FOR RESEARCH AND PRACTICE

2.1 Behavioural Treatment of Obesity

Behavioural treatment is used to assist obese individuals to reach their ideal weight by distinguishing the processes of change, and creating long term changes through the development of a group of skills such as problem solving, goal setting and self-monitoring [7]. Many studies have concluded that behavioural treatment can increase weight loss by 10% in the first six months of weight management intervention [7].

Furthermore, NICE [6] indicates that the behavioural interventions that are used in weight management should also include several approaches that are suitable for the patients. These approaches could include social support resulting in an increase in the level of assertiveness, the maintenance of changes, and the avoidance of relapse.

Many studies have concluded that behavioural treatment can increase weight loss by 10% in the first six months of weight management intervention [7].

The behavioural therapy of obesity aims to correct unhealthy eating habits and the lack of physical activity in obese people through the application of learning principles, as it helps them to recognise unhealthy habits and to create a positive reaction to them by changing and assessing their nutritional regime and modifying their exercise [8,9] thereby promoting a new and positive approach [7].

Cognitive behavioral therapy (CBT) is a psychosocial intervention for treating many health problem including obesity. It's usually used evidence-based practice and aims to focus on solving current problems and changing unhelpful behaviors [10].

Several study indicates that, family-based behavioral treatment programs is the most effective approaches in obesity management especially when targeting cognitive skills include [11].

2.2 Counselling Skills

Although the patient is primarily responsible for the change in his or her behaviour, it is also the

responsibility of the dietitian to help in the change process by providing effective nutritional advice [7].

Providing ideal nutritional advice does not come innately. Rather, it requires a lot of training and skills to enable the dietitian to provide influential nutritional counselling. Increased interpersonal communication skills on the part of the dietician could result in increased levels of adherence and compliance among patients to lifestyle intervention [11].

The majority of overweight individuals understand what they have to include in their diet, but the biggest challenge that remains is making them apply this in an environment that does not encourage them to do so. As a result, finding and resolving the difficulties and barriers facing patients is more helpful than just providing the right advice [7].

The nutritional counselling provided to obese patients by healthcare professionals must be in accordance with the patient-centred care ideology [6] and they should ascertain patients' thoughts through open discussion with the patients, about their evaluation of their current weight, the reasons why it increases and by discussing their lifestyles, beliefs about their ideal weight and any previous attempts at weight reduction.

If patients spend more than 50% of the allotted time in talking during the session, an increase in the effectiveness of the nutritional advice will be achieved, so it is important that there should be consensus between given advice and solving problems during the counselling [7].

2.3 The Transtheoretical Model (Stages of Change)

Weight management intervention in primary health should be discussed with the patient, while, in public health, whether in private or within the community, it must contain several behavioural change techniques such as dealing with errors in the diet plan, wrong attitudes, and the control of daily consumption [6].

Theories of behavioural change have an effective impact on the analysis of the relationship of health related behavioural change in the individual and can lead to the creation of a set of models that encourages the individual to develop and promote behavioural change to ensure the success of healthy lifestyle intervention. One of these effective theories is the transtheoretical model, which is a theoretical model developed and based on the various theories used in psychotherapy by psychologist Prochaska and colleagues in 1977 [12].

The transtheoretical model indicates that individuals do not make crucial decisions to modify their behaviour. It states that the change of behaviour on the part of individuals is a gradual process, divided into several stages (stages of change) [11].

The transtheoretical model is used in terms of lifestyle intervention to promote health by evaluating an individual's readiness and ability to develop a healthy change in their behaviour, or to direct them during the stages of change [11]. The model explains how it is possible for an individual to change an unhealthy behaviour or to achieve a positive approach.

As described by the transtheoretical model, behavioural change is a gradual process involving five successive stages: Precontemplation, Contemplation, Preparation, Action and Maintenance [12].

The first stage is Precontemplation. This is classified as relating to an individual who has no intention of making any changes in the near future. The second stage is Contemplation where the individual intends to make the changes in the next six months. Preparation is the third stage of the transtheoretical model, during which individuals are classified as being determined to make the change immediately.

The next stage is Action. This stage relates to people who have made specific changes in their behaviour in the previous six months. The final stage is Maintenance where the individual tries to prevent relapse [12].

The transtheoretical model suffers from some important limitations, such as problems in definition and size of the stages and lacks of the strong predictive utility [13,14,15].

2.4 The Helping Process

The helping process is one of the behavioral change techniques developed by Prochaska and Norcross in 1992 that has become widely used in health promotion intervention. The helping process is deified as a constructive process in

which the health care providers empower the patients to plan strategies and to apply significant change [14], This process can be applied in obesity management through positive reinforcements and suitable goal setting with the patients, resulting in stimulus control by helping the patient to reorganize the environment to controlled undesired behavior. This could be done through actively listening to the patients, illustrating what s/he wants, identifying the problem that s/he is facing and assisting the individual to find solutions to these problems [16].

2.5 Motivational Interviewing (MI)

Motivational interviewing is a type of counselling model that focuses on the patient (i.e. it is patient-centred) to assist in changing unhealthy behaviour by helping the individual to discover and resolve his or her conflict about behaviour modification. The motivational interview approach is based on the principle of negotiation rather than conflict [17].

This approach was developed by the psychologists Bill Miller and Stephen Rollinick in the 1980s for the treatment of people who are addicted to alcohol, and it has been linked with a mixture of hypothetical models involving behavioural change [18].

Motivational interviewing aims to help raise the level of patient knowledge about causes and consequences of potential problems, and how they could be avoided by behavioural changes. On the other hand, it supports the health care provider in helping their patients to imagine a better future, and encourages them to be very motivated to reach it. This approach tries to helps patients to experience what they could achieve through a change in their behaviour [19].

3. DISCUSSION

In 2003, the Health Development Agency published an evidence briefing summary about the management of obesity and overweight in children and adults. This document addressed the outcome of the selection of systematic and meta-analyses evidence of different lifestyle interventions [20].

In their review they assessed three systematic reviews [21,22,23] about different intervention procedures with regard to weight management in children. They found that such interventions, which include a change in behaviour, are most effective in reducing weight in primary schoolchildren, especially when parents take part in these programmes [20].

They also assessed three systematic reviews of the success of behavioural therapy used in weight loss intervention in adults [20,22,24,25]. They found that in one year, the behavioural therapy strategies are effective in weight reduction in adults when incorporated with other programmes such as diet and exercise. At the same time, there was insufficient evidence on the effectiveness of increasing the duration of behavioural therapy or group behavioural therapy.

In another systematic review of psychological interventions related to overweight or obesity, [26] reported that cognitive therapy and relaxation therapy helped to reduce weight in obese adults when it involved other weight reduction therapy. However, its impact was not effective if used as mono therapy in weight management intervention.

In a systematic review and meta-analysis of randomised control trials of the use of counselling skills (motivational interviews) in terms of their effectiveness with regard to weight loss intervention, Rubak et al. [26] indicated that around 64% of the studies have stated that less than 20 minutes of motivational interview during the short consultation process showed a significant improvement in patients' compliance with the intervention. However, the investigators stated that there is a big need for research to confirm that motivational interviews could be used in daily clinical settings as part of a health promotion programme.

Brown et al. [5] conducted a systematic review of long-term lifestyle interventions to prevent weight gain and morbidity in adults. They indicated that diet, alone and with the addition of exercise and/or behaviour therapy, led to significant weight loss. Using dieting and physical activity intervention with behavioural therapy could have an enhanced impact in diabetes metabolic outcomes compared without involvement of behavioural change therapy.

4. CONCLUSION

In terms of interventions for the management of obesity, there is a large amount of evidence discussing the effectiveness of different approaches of behavioural therapy and

behavioural change techniques and the skills of counselling in the treatment of obesity. There was an agreement that behavioural change strategies have a significant impact in the success rate of this intervention.

On the other side, this does not necessarily mean that other obesity interventions based on diet and reducing sedentary lifestyle interventions that do not include any aspects of the behavioural change therapy is not be effective.

Behaviour change therapy in obesity treatment is not only assisting people to take their decision to change, it is helping them to find ways to change. Therefore the health care provider especially dietitian should have the appropriate training and counselling skills to helping people to achieve their goals and lose weight.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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