

Motivational Interviewing in Overweight and Obesity – A Review

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Predictive data indicates, that worldwide by 2030 over 2 billion adults will be overweight, and over 1 billion will be obese; this will constitute over 50% of the world's population (Kelly et al., 2008). Worldwide, excess bodyweight is the sixth most important risk factor contributing to overall burden of disease, with the negative consequences of obesity including cardiovascular disease, type 2 diabetes and several cancers (Haslam & James, 2005). There is also an increase in all-cause mortality amongst obese individuals (Shaw, O'Rourke, Del Mar & Kenardy, 2008) Research on chronic disease prevention has focused on behavioural outcomes, with behaviour change identified as an important outcome in prevention (Emmons & Rollnick, 2001). Behavioural as well as cognitive behavioural strategies combined with diet and exercise strategies have been proposed as potentially effective weight management approaches (Shaw et al., 2008). Motivational interviewing (MI), an approach that has proved successful in changing some addictive behaviours has been suggested as a potentially effective adjunct to behavioural weight loss interventions (DiLillo, Siegfried, & Smith-West, 2003).

Overweight & Obesity

The problem of overweight and obesity is now recognised as a global issue; around 30,000 deaths per year in the United Kingdom and 300,000 in the United States are attributable to obesity (Haslam & James, 2005). Although it is important to point out that overweight is a risk factor for chronic disease, whereas obesity is a chronic disease (Soderlund, Nordqvist, Angbratt, & Nilsen, 2008), epidemiological data indicates that both overweight and obesity lead to a range of comorbidities (Kelly et al., 2008). Type II diabetes, certain types of cancer, cardiovascular disease, hypertension, hyperlipidemia and premature death, are all associated health consequences (World Health Organisation, 2005). Overweight and obese individuals are also at greater risk of psychosocial problems including low self-esteem and body image disturbance (Brennan et al., 2008).

The World Health Organisation (2007) defines excess body fat using the body mass index ($BMI = \text{weight (kg)} / \text{height (m}^2\text{)}$). Overweight has been defined as a BMI of 25 to 30, and obese as a BMI of 30 and above (Shaw et al., 2008). Explanations for individuals becoming overweight or obese have been divided into environmental, (e.g. social and cultural factors) and biological, (e.g. genetics) (Shaw et al., 2008). However, poor diet and physical inactivity are judged to be the main contributing factors (World Health

Organisation, 2005). There is particular concern regarding rising obesity in children, evidence indicates that the obesity developed in childhood influences patterns of obesity in later life (Shaw et al., 2008). Although programmes aimed at a reduction in overweight and obesity have been launched (Kelly et al., 2005), no effective strategy has yet been developed and the challenges of prevention and management are overwhelming (Haslam & James, 2005). Lacks of awareness regarding long-term consequences, and lack of motivation for change, are seen as major barriers, and motivating individuals to change behaviour for health reasons is now recognised as an important element in addressing overweight and obesity (Haslam & James, 2005).

The Process of Behaviour Change

Several theories have been proposed regarding the process of changing behaviour; these include social learning theory, the health belief model, the theory of reasoned action and the Transtheoretical Model (Emmons & Rollnick, 2001). A key link between these theories is a recognition of the importance of motivation to change, and strengthening factors and processes that encourage change (Emmons & Rollnick, 2001). The transtheoretical model has been of particular interest in terms of its link to MI. Within this model, intentional rather than imposed change is emphasized (Prochaska, DiClemente, & Norcross, 1992). The Transtheoretical model proposes a continuum of change within which there are 5 categories, precontemplation, contemplation, preparation, action, and maintenance (Shinitzky & Kub, 2001). Based on work modifying addictive behaviour, Prochaska, DiClemente, & Norcross (1992) outlined how the pattern of change and movement along the continuum is rarely linear. They proposed a spiral pattern of change, whereby individuals move through the stages, relapse into old behaviours, and then recycle through the stages as they attempt to make the chosen changes. The starting point for an intervention based on this model, is to assess current readiness to change (Prochaska, DiClemente, & Norcross, 1992). Having identified a person's stage of change, MI has been described as a framework that can facilitate movement along the continuum (Shinitzky & Kub, 2001)

Motivational Interviewing

Developed by Miller and Rollnick, MI is a useful intervention strategy in the treatment of lifestyle problems (Rubak, Sandboek, Lauritzen, & Christensen 2005). Miller (1996) proposed that MI was more of a style of therapy than a set of techniques, and it has been described as a client-centred counselling style that elicits behaviour change through exploring and resolving client ambivalence (Rubak et al., 2005). Practice is guided by 5 basic principles, express empathy, develop discrepancy, avoid argumentation, roll with resistance,

and support self-efficacy (Miller, 1996). The key goal of the intervention is to increase the importance of change from the clients' perspective without the therapist advocating change (Burke, Arkowitz, & Menchola, 2003). It is hypothesised that readiness to change stems from the clients perception of the importance of change, and their confidence in successfully changing (Burke, Arkowitz, & Menchola, 2003). Re-inforcing optimism, and strengthening self –efficacy for change, are therefore important elements of these interventions (Miller, 1996). MI is seen as applicable in the management of diseases with a behavioural component (Rubak, et al., 2005) and is therefore proposed as a potentially effective tool within a comprehensive behavioural weight loss programme (DiLillo, Siegfried, and Smith West, 2003; Smith West et al., 2007). Its efficacy within clinical control trials has been assessed and good empirical evidence exists for interventions in drug, alcohol, and diet/exercise. (Dunn, Deroo, & Rivara, 2001; Burke, Arkowitz, & Menchola, 2003; Rubak et al., 2005). However, there is little theoretical or empirical literature specifically on the treatment of overweight and obesity (Brennan et al., 2008).

Motivational Interviewing in Overweight and Obesity

Overweight and obesity have a significant impact on physical and emotional well-being, obesity in particular, is seen as one of society's great challenges. Increasing numbers of childhood obesity are of particular concern and treatment and management have become major healthcare priorities (Soderlund et al., 2008). Obesity and overweight are not behaviours per se; therefore the practitioner must work with the behaviours causing the overweight or obesity (Reniscow, Davis, & Rollnick, 2006). Recently MI has been seen as a possible strategy for increasing readiness to change health behaviours (Berg-Smith et al. 1999). Traditional healthcare approaches have focused on advice giving, where the health practitioner is the expert providing facts and interpretation (Emmons & Rollnick, 2001). The practitioner uses a directing style and might provide information on risks and benefits of change, with intent to persuade (Reniscow, Davis, & Rollnick, 2006). MI assumes that change is more likely to be affected by motivation, than information, and requires the individual to do much more of the psychological work (Reniscow, Davis, & Rollnick, 2006). This more guiding approach is seen as better suited to motivating health behaviour change (Reniscow, Davis, & Rollnick, 2006). Ambivalence is inherent in the weight loss process, MI aims to assist the individual in identifying differences between current and desired behaviour, acknowledging ambivalence (DiLillo et al., 2003). Utilising a MI style approach, practitioners might explore a participants motivation to lose weight, how weight loss relates to future goals, the ebb and flow of ambivalence about changing eating and exercise behaviour, and whether behaviour change is congruent with the persons future vision and personal values (Smith-West et al., 2007). Despite the lack of evidence and literature

available in this area, a small number of studies indicate that MI might be a useful stand alone or adjunct method of treatment for overweight and obesity.

Research in Motivational Interviewing and Overweight and Obesity

Reviews by Burke, Arkowitz, and Menchola (2003), and Rubak et al. (2005), highlighted potential for MI in a range of areas including diet and exercise, however, little data exists on overweight and obesity specifically. Smith West et al. (2007) conducted a randomised controlled clinical trial with 217 female adult overweight type II diabetics. Eighteen months of group based MI was used as an adjunct to a weight control programme. Women in the MI group showed significantly more weight loss at both 6 and 18 months and demonstrated enhanced adherence to the weight control programme. Flattum et al. (2009) conducted a preliminary study with 20 overweight 16-18 year old females. The 18 week pilot study looked at the efficacy of 7 individual MI sessions to develop weight management goal setting; 90% set at least two weight management goals but results did not clearly identify any effects on overweight or obesity. Kreman et al. (2006) examined the effects of MI on hyperlipidemia, a condition that has been linked to obesity. Using a randomised control trial, 24 subjects received either education or education plus one 30 minute MI structured telephone call. A significant reduction in total cholesterol was seen in the MI group. Brennan et al. (2008) described a planned randomised controlled trial using a MI plus cognitive behavioural therapy intervention with 29 male and 34 female obese children aged 11-19. The intervention consists of thirteen individual treatment sessions and nine maintenance follow up sessions. Results have yet to be reported.

Summary and Conclusion

Excess bodyweight is now a significant contributor to clinical and public health burdens worldwide. It is predicted that by 2030 potentially 3 billion individuals might be overweight or obese. Prevention and treatment of are now a major priority and strategies to enhance behaviour change have been identified as a important element in this process. Previous approaches have focused on advice giving and action orientated approaches. In contrast, motivational interviewing, a technique focusing on a persons motivations, rather than information, has proved successful in treating addictive behaviour and has been proposed as a possible strategy. Although its efficacy in the prevention or treatment of obesity is not yet clear, the evidence from related fields suggests it is worth pursuing as a prevention and treatment approach.

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