Applying motivational interviewing to counselling overweight and obese children

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Abstract

The aim of this study was to identify barriers and facilitators to nurses’ application of motivational interviewing (MI) to counselling overweight and obese children aged 5 and 7 years, accompanied by their parents. Ten welfare centre and school health service nurses trained and practiced MI for 6 months, then participated in focus group interviews concerning their experiences with applying MI to counselling overweight and obese children. Important barriers were nurses’ lack of recognition that overweight and obesity among children constitute a health problem, problem ambivalence among nurses who felt that children’s weight might be a problem although there was no immediate motivation to do anything and parents who the nurses believed were unmotivated to deal with their children’s weight problem. Facilitators included nurses’ recognition of the advantages of MI, parents who were cooperative and aware of the health problem and working with obese children rather than those who were overweight.

Introduction

Obesity is one of the greatest challenges facing modern society. The majority of European countries have seen obesity increase by ~10 to 50% over the past 10 years and similar trends have been observed in other developed and less developed countries across the world [1]. Obesity has a major impact on individual health and well-being, both physically and emotionally. There are significant and wide-ranging health problems associated with obesity; the most common of these are coronary heart disease, Type 2 diabetes, hypertension and certain types of cancer [2–4]. While the terms ‘overweight’ and ‘obesity’ are used almost interchangeably in everyday language, the two concepts should be distinguished: overweight is a risk factor for chronic disease, whereas obesity is considered a chronic disease [5].

The increasing proportion of pediatric overweight and obesity is of particular concern. Over the last two decades, the prevalence of obesity among children in Europe has risen up to 3-fold [6–9]. The risk of childhood overweight developing into adult obesity increases with the degree of overweight and obesity, the age of the child and the parental obesity [10, 11]. Social stigmatization, prejudice and discrimination are common experiences for obese children, often leading to a negative self-image and low self-esteem [12].

Preventive health services provide an opportunity to detect the early signs of obesity and offer advice on lifestyle issues. In Sweden, several health care actors are involved in a national strategy to promote healthy habits. Children aged 5 years meet with a child welfare nurse for counselling which...
Motivational interviewing with overweight and obese children

involves a length and weight check-up. When they begin school at the age of 7, they meet a school health service nurse for a weight control and opportunity to counsel about nutrition, eating habits and physical activity. The child is accompanied by one or both parents at both types of health controls [13]. However, despite the fact that the Swedish strategy reaches ~99% of all children aged 5 and 7 years [13], the prevalence of obesity has increased dramatically in school-age children over the last decades [14, 15]. There was a 2-fold increase in overweight and a 4-fold increase in obesity between 1984 and 2000 among 10-year-old children in western Sweden [9].

Motivational interviewing (MI) has emerged as a promising counselling technique that has successfully been applied with a broad range of behavioural issues, including overweight and obesity [16, 17]. MI uses person-centred skills within a flexible structure for helping people develop internally motivated desires for change by exploring the pros and cons of change and then strengthening commitment for change [18]. Research has demonstrated convincing effectiveness for MI in reducing risk factors associated with overweight, nutrition, total blood cholesterol, systolic blood pressure, alcohol consumption and physical activity [19, 20]. However, there are very few published MI studies involving counselling of children. A 2006 systematic review by Resnicow et al. [21] identified only five studies (including one unpublished) using MI for control of pediatric weight, diet and physical activity.

Drawing upon principles from motivational psychology, MI assumes that behaviour change is affected more by motivation than information. Motivation is viewed as a fluctuating state of readiness to consider changing behaviours, rather than as a stable personality trait [22]. An important theoretical grounding of MI is Carl Rogers’ research on reflective listening first described in the 1950s [23]. Rogers believed that significant learning is only possible when the individual has confidence in his or her learning ability. The counsellor has a patient-centred perspective and focuses on the patient’s ambivalence to change. MI recognizes that unless people themselves see the need to change, no lasting change will ever be achieved; ultimately it is the patient who decides whether and how to change [16, 24]. Another important element of MI is to work with the patient’s confidence to change by providing support for carrying out the changes. The tone of MI is non-judgemental, empathetic and encouraging [25].

This paper describes a Swedish project in which MI was applied to counselling overweight and obese children aged 5 and 7 years who were accompanied by their parents. Based on interviews with the health care professionals who delivered the MI sessions, this study seeks to identify barriers and facilitators to applying MI to counselling overweight and obese children. To the best of our knowledge, no previous research has been conducted to examine the extent to which MI counselling is feasible for this client category.

Materials and methods

Five child welfare centre nurses and six school health service nurses were trained for 2 days in the basic principles of MI. They then practiced MI for 6 months in their routine work, counselling overweight and obese children aged 5 and 7 years in health controls. The children were usually accompanied by one or two parents. The nurses attended four follow-up sessions during this 6-month period to discuss problems that they had encountered in their counselling practice and to receive feedback on how to handle difficult counselling situations.

Body mass index (BMI) was used in the health controls to assess how much a child’s body weight departed from what is considered normal or desirable for a person of his or her height. BMI is calculated as weight (kg) divided by height squared (m²). Overweight for adult men and women is defined as a BMI ≥25, while obesity for adult men and women is defined as a BMI ≥30 [5]. This study used the international standard definition for overweight and obesity in children, which applies slightly different BMI cut-off values, as recommended by the International Obesity Task Force [26].
An agenda chart was developed [27] for the health control counselling, presenting a menu of health promotion options based on good eating habits and physical activity [28] to guide the discussion and help with priority setting. An ‘importance ruler’ was used to determine the perceived importance of behaviour change to the client and a ‘confidence ruler’ assessed how confident the client was to make the change [29].

Following the 6-month period of training and practising MI, the 11 nurses were asked by the MI instructor to participate in interviews for the purpose of this study. The nurses also received a letter explaining that the interview would be tape-recorded and that their confidentiality would be respected. Everyone agreed to participate although one person was unable to attend the interview due to illness. The study was approved by the Ethics Committee of Linköping University.

The multi-professional research team prepared an interview guide [30] for the interviews, containing a number of open-ended questions concerning the nurses’ experiences with applying MI to counselling overweight and obese children. Focus group interviews [31] were conducted with the 10 nurses, all of whom were women, the majority middle aged. The interviews were conducted by the second author and an observer. The interviews began with a few minutes’ introduction when the moderator explained the purpose of the interviews. It was emphasized that the participants could withdraw at any point. The sequence of questions varied and the nurses’ answers to the questions were followed up with further questions. Rephrasing and probing were used to obtain a deeper understanding. The first interview lasted ~45 min and the second 75 min. The interview tapes were transcribed verbatim.

The analysis of the interviews was carried out in several steps. First, the researcher who conducted the interviews read the transcriptions while listening to the audio recordings of the interviews, making a few corrections. The text was then coded line-by-line for substantive content and was categorized with the purpose of identifying the nurses’ perceived barriers and facilitators to applying MI with overweight and obese children. Quotes were selected on the basis that they were succinct examples of consensual views. No attention was paid to which person in an interview made a certain comment. Finally, for increased trustworthiness, the results were verbally presented to all focus group participants in a meeting. They then provided feedback on the results during subsequent discussions in smaller groups.

### Results

Through the process of data analysis, several factors emerged as barriers or facilitators to the nurses’ application of MI to counselling overweight and obese children aged 5 and 7 years and their parents (Fig 1). The factors are not mutually exclusive.

#### Barriers

Some statements by nurses clustered under problem denial, i.e. there was a lack of recognition among nurses that overweight and obesity among children constitute a real problem. Nurses argued that these children would naturally ‘grow out of it’ and would not remain overweight. Illustrating this barrier, one nurse believed that they ‘have too weak ground to be able to discuss this, because many of them will grow and lose weight’. Another nurse described the children as ‘healthy fat children’, implying that MI counselling or other interventions were not necessary.

A similar barrier to applying MI in counselling children was problem ambivalence among nurses, who had a feeling that children’s weight might be a problem and that something ought to be done about it although there was no immediate motivation to do anything. For example, one nurse said it was only natural with ‘a little flesh on the body’, which meant that she did ‘not think of it as obesity or overweight; you accept that they are rounder around the stomach area’. Nurses said that they hesitated to bring up weight issues unless a child was clearly obese. Contributing to the nurses’ ambivalence about the problem was their impression that experts have not agreed on definitions of overweight. One nurse contrasted this with smoking, which is an issue on which society communicates a unified message.
Nurses believed that parents’ problem denial and ambivalence hindered their use of MI to counselling overweight and obese children. Parents who were obviously overweight or obese, yet considered themselves perfectly healthy and fit, argued that their children too were ‘big but healthy’ and hence not in need of any weight counselling. Still, nurses overwhelmingly viewed overweight and obesity as a family problem. ‘Really, you should start with the parents’, stated one nurse. ‘You should teach them [the parents] to eat better and then, I think, the children will follow suit, when you influence the parent to eat in the right way and to develop the right habits’. However, if parents were not convinced that their child’s weight was a problem, nurses felt it was difficult to apply MI counselling.

Still another barrier occurred when nurses perceived that parents lacked willingness or motivation to deal with the children’s weight problem even though they were aware of the problem. Nurses complained that many parents seemed to pay lip service to their information, but did not really consider making any changes. The following example illustrates this barrier, ‘Sometimes the person can be sitting there and saying ‘yes, hmm, yes’ and then you think that the person understands, but they really haven’t’. Nurses stated that some parents did not accept that the weight issue was their responsibility, instead blaming their child. An opposite example was parents who were overly protective of their child and did not want to discuss weight issues in the presence of the child for fear of inducing feelings of guilt or shame.

### Facilitators

Nurses’ recognition of the advantages of the MI technique and their embracing of its spirit was a critical factor facilitating the use of MI to counselling overweight and obese children. Despite the experienced barriers, nurses believed that MI was a potentially efficient problem solver because they felt it was particularly useful for addressing

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<td>• Nurses’ perception that parents denied or were ambivalent to the child’s problem</td>
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<td>• Nurses’ perception of parents lacking willingness or motivation despite likely problem recognition</td>
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<td>• Nurses’ perceived advantages of the MI technique and philosophy as an efficient problem solver</td>
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<td>• Nurses working with obese (rather than overweight) children because there is more of a problem recognition</td>
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Fig. 1. Barriers and facilitators to applying MI to the nurses’ counselling of overweight and obese children.
sensitive topics such as overweight and obesity. For example, one nurse said that ‘it is a relief to be able to ask the question in this method, “Do you want me to tell you more?” Then you get a “yes” or “no” and then you can save a great amount of work if they do not want you to’. Another nurse stated that ‘earlier we informed and informed and listened and informed again, but now we try to encourage the patient to re-think instead’. MI was considered particularly beneficial for dealing with serious health problems such as anorexia, ‘It is better with this method when there are sensitive problems. The responsibility rests on the person’s shoulders to reflect and to put their thoughts into words instead of following your pointers and suggestions. They have to understand that they are responsible for their own lives, and then this is the [most appropriate] method’.

Another important factor that facilitated the application of MI was cooperative and knowledgeable children and parents who recognized the problem of overweight or obesity. One nurse simply concluded that ‘if you have a motivated parent it is much easier to conduct a motivational interview with the child’. Nurses believed that most children and parents have considerable knowledge concerning food. ‘Often they [parents and children] know a lot and have some solutions if you ask them, if you can refrain from starting to provide advice’, one nurse said. Another nurse observed, ‘I am surprised that kids in the first grade know so much about food and sweets, even about soft drinks. They say they know that this is not good for their health, yet they eat it! You might think that young children do not reflect on such things, but they really do’.

Finally, nurses believed that working with obese children, rather than those who are merely overweight, helped the application of MI counselling. This was because the nurses believed that parents of obese children to a larger extent recognized the significance of the problem and appeared to be more willing to find solutions and accept help. The following example illustrates this facilitator: ‘Parents who bring already obese children are somehow already prepared that we will bring it up and often anticipate this, and bring it up themselves’.

**Discussion**

This study has identified a number of barriers and facilitators to nurses’ application of MI in their counselling of overweight and obese children aged 5 and 7 years accompanied by their parents. Despite the nurses’ recognition of the advantages of MI, many found it difficult to counsel the children and their parents on weight issues. Several barriers to the use of MI were identified. Some of the problems the nurses experienced arose from the fact that many were sceptical as to whether pediatric overweight or obesity really constitutes an important health hazard.

The nurses perceived that their scepticism was shared by many of the children’s parents. The extent to which MI was applied seemed to depend on how problem recognition among the nurses and parents overlapped. When both nurses and parents questioned that pediatric overweight or obesity was a real, tangible problem, there was very little actual counselling on weight issues. Counselling was also difficult when the nurses encountered parents who lacked motivation or willingness to deal with the subject. MI counselling appeared to work only when both parties, the parents and the nurse, recognized that the child’s overweight and obesity was a significant health problem. We have not been able to locate any other studies investigating this dilemma although Rhee et al. (2005) concluded in a study that the parent’s belief that his or her child’s weight is a health problem is critically important to parental readiness to make changes to help their child lose weight [32].

The nurses expressed a preference for applying MI with obese rather than overweight children, partially not only because of the ‘visibility’ of obesity but also because they considered obesity a more important health problem than being overweight. The rise in BMI rates appears to have resulted in a certain degree of overweight becoming a socially accepted norm, resulting in an increased tolerance for overweight children. In contrast, obesity is more widely regarded as a serious medical condition with potentially hazardous consequences.
Working with obese children strengthened the nurses’ role security, as they perceived there being more of a societal consensus that obesity is a condition that requires treatment. However, this effectively means that they focused on the high-risk population, i.e. taking more of a secondary prevention approach than a population-oriented primary prevention approach [33].

An explanation for the difficulties the nurses experienced in counselling overweight and obese children is the acknowledged complexity of weight management issues. As overweight and obesity prevalence has increased so fast, training has not been in place to equip health care professionals with the knowledge and skills to manage this health problem [1]. Another likely reason for the nurses’ difficulties is the perceived sensitivity of the weight issue. Indeed, for many nurses and parents, the main concern was not health risks but emotional problems. To live in a society that values thinness often promotes feelings of guilt, anxiety and depression in children who differ from societal norms. Children dislike those who are ‘different’ in some way [34]. Nurses tended to evade the weight issue out of empathy for the child or for fear of offending the child and its parents, thus avoiding tension or potential conflict in the consultation. A child’s weight problem is usually a symptom of a larger problem within the family, making the counselling situation more complex as the client is not just the child, but the whole family. There is some evidence that older obese children do not benefit from involvement of their parents, although parent involvement can be beneficial for younger children [35].

Other aspects of the counselling situation may also contribute to the nurses’ problems of applying MI with children. The consultation situation described in this study is different from when concerned people approach health care for help, as the 5 and 7-year-old check-ups are routine sessions for all Swedish children. Moreover, overweight/obesity is not a behaviour per se, so an important task is to work with the patient and child to identify what behaviours contribute to the child’s health status and determine which behaviours they feel are most amenable to change. There is also research that shows that communication with children might be particularly challenging. For example, it has been found that health care providers may ask children questions, but when it comes to providing information they address the parent because they do not always feel confident about communicating with children or fear that it may take too much time [36]. Research also indicates that providers might need to utilize more questions as opposed to reflections in order to elicit responses when applying MI with children [21].

The present study suggests that the attitudes and beliefs of many health care providers with regard to weight issues have not been modified at the same pace as the increasing prevalence of overweight and obesity. This points to the importance of providing health care providers with more knowledge about weight issues, including pediatric overweight and obesity. Increased understanding of the potential causes of overweight/obesity and knowledge about the nature of the problem and its health consequences would likely improve the nurses’ role security and make them more confident in their ability to treat overweight and obesity. While the nurses in the present study may have obtained considerable MI skills, the results clearly indicate that problem solving will not be effective unless there is recognition that there is a real health problem to be solved. Hence, health care providers need to be equipped with high-level skills both about the problem and the solution in order to counsel clients in a professional way.

It is important, however, to view education as part of a wider context because empirical findings demonstrate that educational initiatives need to be combined with a supportive organization that aids the staff in pursuing the work they have trained to do [37]. Motivational theories posit that knowledge gained through education is just one of many elements that influence motivation to change an established way of working. Other factors that may influence motivation to change include organizational commitment, support from colleagues and management, participatory involvement, belief in one’s ability and a sense of identity and integrity to go ahead with change [38].
The exploratory nature of this research and methodological limitations constrain the conclusions to be drawn from this study. Other studies may yield partially different factors hindering and facilitating the use of MI to weight counselling among children than those identified in this study. These limitations notwithstanding, this study has provided information on difficulties associated with applying MI with pediatric overweight and obesity. Although MI has been successfully used with many health behaviours, this study demonstrates that applying a patient-centred approach with children may pose considerable challenges when health care providers are not fully convinced of the existence or significance of the health problem. Further research is needed for improved understanding of how perceptions of the health issue being addressed may affect counselling.

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Conflict of interest statement

None declared.

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