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Review

# A Qualitative Evaluation of an NHS Weight Management Programme for Obese Patients in Liverpool

## Introduction

Obesity has been defined by the National Institute for Clinical Excellence (NICE) as a medical condition, in which adult subjects have a body mass index (BMI) of 30 kg/m<sup>2</sup> or above (NICE, 2006).

The World Health Organisation (WHO) estimates that approximately 200 million men and 300 million women globally are obese (WHO, 2013). In the U.K. data shows 24% of males and 26% of females had a BMI of 30 or over in 2011 (HSCIC, 2013). By 2050 this is predicted to rise to 60% and 50% respectively (Foresight, 2007).

The reasons for increasing trends are vast and can range from environmental aspects through to psychological and developmental factors (Foresight, 2007). However, it is the complexity of these interrelated factors combined with high prevalence, cost of treatment and associations with other diseases that are of governmental concern, with initiatives such as Change 4 Life being created in response (Grundy, 2004). This scheme showed positive initial changes in areas such as participants' shopping habits (Change 4 Life, 2010). However, suspicion regarding the initiatives agenda grew when food manufacturers were asked to resume funding after government cuts (Powell, 2010).

Governmental bodies are not alone in attempting to reduce levels of U.K. obesity. Numerous commercial businesses now offer programmes, with many charging fees for their services. Although popular and offering long-term support, success rates are debatable. A systematic review by Tsai and Wadden (2005) concluded that commercial weight management programmes are 'suboptimal' with the exception of Weight Watchers. However, some argue this enterprise only provides modest reductions in weight when compared to self-help and medically supervised programmes which may be useful in cases where a patient has a BMI of 30 kg/m<sup>2</sup> or over (Heshka *et al.*, 2003).

Unconvincing evidence surrounding the effectiveness of many programmes along with rising levels of obesity motivated Liverpool Community Health NHS Trust to form a local weight

management service in 2008. The service consists of specialist dietitians working in conjunction with expert agencies to empower referred, clinically obese patients to make long-term, sustainable behavioural changes towards a healthy diet and lifestyle during a 12 week education programme (Liverpool Community Health, 2010). This is achieved via a series of mixed gender sessions, drawing from theoretical and practical areas, such as food and nutrition education, healthy cooking workshops, behavioural change and physical activity sessions. It is this multi-intervention approach with qualified staff which makes the Liverpool Weight Management Programme (LWMP) different to many commercial programmes.

Since the LWMP began, its effectiveness has been quantitatively evaluated using markers such as weight, BMI and clinical outcomes such as lipid profile, HbA1c and blood pressure. After 3 months statistically significant reductions in weight ( $p < 0.05$ ) and lower BMI were observed. Additionally there were also improvements in food intake, quality of life and self-esteem; however a qualitative assessment of the programme was missing (Mullarkey, 2011). Existing qualitative work in the area suggests that regular appointments, realistic targets, recognising responsibility and a positive attitude from staff appear to be important indicators of success within a health service programme and difficulty with physical activity has been shown to be a limiting factor (Perry *et al.*, 2011). Furthermore, work by Allan *et al.* (2010) suggests that whereas the use of marketing theory and class styles often dominate in 'branded package' commercial services, more informal, less explicit formats are frequently adopted in health service programmes. It should be noted however that reports such as these are sparse; with the majority of literature quantitatively highlighting weight loss outcomes without fully examining patients lived experiences. This lack of evidence presents opportunities for qualitative, focus group driven studies. This approach is important because to satisfactorily comply with NHS quality requirements data should come from patient feedback as well as outcomes (DoH, 2011). Additionally, qualitative feedback may allow comparisons to be made with existing quantitative research, providing a clearer picture of the programme. Furthermore, outcomes may also provide documentary evidence when attempting to secure future funding and plan future interventions. This report will address these aspects by providing a qualitative evaluation of the LWMP by analysing the results from a series of focus groups involving patients who completed a full 12 week programme.

**Materials and Methods**

A qualitative methodology was chosen for reasons previously discussed and ethical approval was sought from Liverpool John Moores University and the NHS prior to the commencement of the study. To ensure the study requirements were satisfied semi-structured focus groups were used due to the design being low cost, easy to organise and effective (Morgan, 1997). Draft semi structured questions were produced in accordance with Kruger’s guidelines, demanding questions be short, one dimensional, conversation evoking, open ended and relative (Krueger, 2009). The format began with introductory questions and moved onto transitional questions before main questions were reached. The discussion was closed with ending questions encouraging reflection (Krueger, 2009).

During recruitment convenience sampling was used and involved verbally asking patients during their final LWMP session if they would like to be involved in the study. The research background, what the study would entail and how the results would be used were explained to encourage participants to be open and honest with answers and minimise participant bias. Patients were briefed with a participant information sheet and asked to sign a consent form. During the consent procedure, potential participants were informed in writing that focus groups would be audio recorded. Existing literature suggested that approximately 6-10 participants per focus group would be appropriate. Any more may become difficult to manage and smaller groups might produce unrepresentative results (Hancock *et al.*, 2009). Patients were invited from 3 weight management groups across Liverpool and 3 focus groups were formed from each of these.

To ensure the focus group design was validated, a pilot test was organised using the same environment, sample size and type described above. Krueger’s pilot study model was followed and draft questions were submitted to a research team member and focus group expert to offer input prior to the pilot (Krueger, 1998). The pilot was successful as all participants understood the questions. All collected data contributed towards the main study.

Once focus groups were completed the audio recorded data was transcribed verbatim and participants were anonymised using alternative names. A thematic approach was followed by performing a constant comparison analysis. Themes were determined as the researcher cyclically read the transcripts and manually grouped content into categories reflecting issues participants regarded as important. A coding frame was developed and redeveloped until

transcripts provided no new themes. The researcher interpreted findings by looking for relationships and patterns among themes (Hancock *et al.*, 2009).

## **Results**

### **Participants**

Despite recommendations mentioned previously for 6-10 participants per focus group, a total of 16 patients consisting of 5 men and 11 women split over 3 focus groups were recruited to undergo tape-recorded, semi-structured discussions. All patients who attended the programme's final session agreed to take part in the focus groups. The first focus group had 3 participants, the second focus group had 4 participants and the third focus group had 9 participants. The participants were from various areas of Merseyside and differing backgrounds. All were clinically obese and had participated in the 12 week weight management programme. The focus groups took place between November and December 2011, immediately after the patients' final session. After data transcription and analysis various themes emerged:

### **Coercion and Pressure**

Throughout the focus groups many participants claimed to have previously engaged with other commercial weight management programmes. There were frequent reports of negative feelings towards these programmes. Joan said:

“One thing that I have noticed is that this is more academic in a sense that you're looking at food and the different food groups which I only had an idea of from school. At the other I think if you lose weight they don't really care too much about how you do it”.

Others complained of the pressure to lose weight during these programmes. Ian describes the extreme processes he used to achieve this:

“When I was doing [Commercial Weight Management Company A] I lost weight every week, but before I was going there I was going to the sauna. You know, deliberate weight loss for the scales to work”.

Additionally, some also spoke of certain strategies used akin to coercion, such as the sale of food at meetings:

“As I say, when you go to [Commercial Weight Management Company B] they don’t tell you about things. They just try to get you to buy their food products”. (Bob)

These aspects in conjunction with the extreme ‘alternative methods’ of weight loss practiced by some highlight a lack of confidence in both the dietary control methods being taught and the idea of being involved in a programme which is primarily concerned with profit.

**Short-Term Dietary Changes**

The purported knowledge participants gained from the programme appeared to translate into empowered dietary changes. An example of this is a reduced consumption of sugary foods which was highlighted when Bob said:

“I was appalled at biscuits. How many calories are in biscuits? Sometimes I go to our Craig’s and he has a tin of biscuits and I used to have about six with my tea, but now I don’t touch them. I don’t even have biscuits in the house. When I go to his I have to say that I’m alright. I never realised how much calories are in them”.

Additionally, the intake of (saturated) fat appears to have been lowered. Dave illustrated this as he described how he abstains from frying foods:

“Because of this, I chop pork up into little pieces and then put it into a wok style cooking with all the vegetables and all that and I not only very much enjoyed it, but I quite enjoyed cooking it as well”.

There were also indications of changes in patients’ organising habits:

“This has been absolutely fantastic for me because I always have great big meals. Now I know, I write everything down, colour it blue and everything red I shouldn’t eat, so it gives me an idea of what I eat at daytime. It’s absolutely fantastic”. (Ingrid)

These comments illustrate examples of small, simple techniques to aid weight management which are easily implementable and sustainable.

**Patient-Centred and Generic Approaches**

Throughout the focus groups, information was revealed regarding patients’ feelings towards the content of the sessions, which in turn exposed the effectiveness of a patient-centred,

individualised approach. Some participants thought the programme was comprehensive. Eric illustrated this by saying:

“The way she’s put it across has been easy to understand. It hasn’t been parrot fashion from a book that some PhD’s wrote and she’s just read it out and said ‘do you understand that? She puts it across really well ... like I say, everything’s been covered and covered well. It’s been really well done so we can understand it.”

Others were not so sure and were eager to offer suggestions, especially regarding their disappointment in the cookery classes and recipes used. An example of this was Ann who said:

“I did lasagne the other week. I didn’t like it. It was horrible ... those aubergines and things like that. I don’t like anything like that ... I didn’t like anything that they cooked”.

Eric also expressed his disappointment for the cookery classes after having to eat surplus Quorn intended for a vegetarian patient:

“Have you ever had scouse with veggie chicken in? Oh it was horrible! So I was like good riddance at the end ... perhaps it might be an idea to do a separate group for vegetarians’ maybe? There’s only so many nut roasts you can eat though isn’t there!”

Although the programme has a multi-disciplinary approach, comments such as these illustrate a need to involve patients in areas such as the planning of cooking sessions and the choice of food to cater for individual requirements. This contrasts with many commercial programmes’ fixed brand, generic strategies.

Conversely, when a slightly more individualised approach was used in other areas of the programme, such as demonstrations incorporating visual aids of weighed bags of sugar and fat to show amounts contained in familiar foods, the responses were markedly different. Many patients appeared to display emotional and personal connections, such as Joan:

“I found them immensely helpful, because you can look at a cream cake and then visualise the fat ... when you look at the sugar content, it was horrendous. I think that it would be a good idea if all these [weight management] groups combined and started to lobby the government to get on the backs of the food manufacturers. Somebody

should stand up to them and maybe it's us with our banners! ... I feel strongly about the stuff we eat and how they should be more responsible".

This more personal approach also seemed to have an empowering effect as some participants made changes and developed new dietary habits, such as Jane who said:

"It just made you realise how much fat you were taking in. Terrible isn't it ... On one occasion I didn't feel like cooking and thought I'd go to the chippy, but then I seen that and I thought I would cook".

**Long-Term Empowerment**

Despite themes of short-term empowerment and confidence often occurring throughout the data, participants still felt concerned about long-term life after the programme. It was often mentioned that a lack of support after the programme was impacting upon patients' confidence for long-term success. However, despite suggestions for self-assessment follow up sessions, the participants maintained the belief these would be useless without the presence of a dietitian. Dave illustrated this:

"Dietitians are more qualified to, you know, say what they're saying and bring you a notice of what is good for you and what is bad for you. You've got the person who is responsible. If you need an operation you would go to the surgeon wouldn't you?"

Comments such as this are concerning as the majority of participants, despite appearing confident in making dietary and lifestyle changes seem to lack the long-term empowerment to progress without guidance.

**Follow Up Support**

Many participants felt the group and social aspects were key factors which made the programme appealing. Ingrid illustrated this:

"I love it! It's nice to talk about it you know. Even when people don't tell me how much they lost it's nice to know if they have done better or worse than me".

Eric echoed this:

"The fact it's just been a small group has been better too, you look forward to coming ... I look forward to meeting everyone. We have a laugh".



However, when asked if participants thought inviting family and friends to the group for support during programme and follow up sessions would be a good idea, they explained they were vigorously against the proposition. A telling example of this was Ann who said:

“I get skitted enough already thanks ... I get called Fat Pat and everything! I get called everything....Going to the Fat Club. That’s what they say to me”.

## **Discussion**

Despite this study evaluating the LWMP, the results offer insight into previous experiences obese patients faced with other programmes. Some participants found commercial programmes coercive and felt they applied pressure. This caused a lack of confidence in dietary control methods and participants reported using extreme techniques. Conversely, the LWMP which embodies an empowering approach appeared to generate an increased confidence in participants.

Work by Jebb *et al.*, (2011) found during commercial programmes, most weight is initially lost over 2 months and levels off over 12 months. Furthermore, a study by Lowe *et al.*, (2001) describes after 5 years of adhering to a commercial programme, approximately 70% of ‘lifetime members’ were successful at weight loss (Lowe *et al.*, 2001). After considering evidence such as this some authors recommend the NHS use commercial programmes rather than primary care models which may interest commissioning bodies (Jolly and Aveyard 2011). However, when evaluating the evidence it can be seen that many studies are frequently funded by commercial programmes and do not consider that those who are successful are often in the minority and may be highly motivated. Other contradictory evidence also suggests it may take obese patients approximately 3 years for effective weight loss and that many interventions have unrealistic expectations (Hall *et al.*, 2011). The present study highlighted how these unrealistic expectations may be projected onto obese patients, often leading to cyclical patterns of unsuccessfully attempting to reach impractical goals whilst using extreme methods. This may then lead to further disempowerment as patients feel they are being controlled rather than put in control. The LWMP however, offers a different approach; aiming to empower and encourage patients’. This has been shown to improve anxiety, participation in decision making, self-efficacy and quality of life (Virtanen *et al.*,

2006). The strategy appeared to have positive results, with comments indicating initial empowerment rather than pressure when compared to previous weight management attempts.

Additionally, participants mentioned developing long-term dietary changes rather than ‘quick fixes’ such as reducing biscuit consumption and using low fat cooking methods. These are positive indicators as practical approaches have often been shown to be more effective than focusing on theoretical food and nutrition groupings (Abusabha *et al.*, 2001). This concept of advising dietary changes slowly over time with emphasised higher gains than losses, as opposed to using pressuring techniques has also been shown to be useful despite factors such as the obesogenic environment or economic circumstances which may lead to dietary changes failing. Therefore, if changes are slowly introduced within an intervention promoting sustainability, they will often have more chance of success. Conversely, more radical diets are also associated with increased chances of attrition and so small, practical changes such as those displayed during this study may be more beneficial (Dansinger *et al.*, 2005). Although the participants commented on their dietary changes closely after their final programme session, the changes have been instilled with a long-term vision and may arguably be translated into the weight management success illustrated in previous quantitative investigations into the LWMP (Mullarkey, 2011).

Despite many participants highly regarding their new skills and habits there appeared to be room for improvement within some of the session content, for example the recipes were not to everyone’s taste. However, when looking closely at the data deeper issues arise. Perhaps the most prominent theme was that of a generic group based approach as opposed to individualised, patient-centred concepts. This is illustrated as participants commented on the appealing nature of the group setting, which corresponds with the work of Gray *et al.*, (2009) who suggests it is not only important for improving motivation, but it creates a ‘safe place’ where patients can openly discuss weight. Despite this, these focus groups have demonstrated that an individualised, patient-centred approach may also be needed in areas rather than treating patients as a generic population. This was evidenced when participants mentioned recipes from cookery workshops didn’t take into account their individual tastes and as a result received negative comments. The future involvement of patients in planning cooking sessions and choosing dishes may help to ensure sessions remain patient-centred. It should be noted that literature suggests individualised treatments need to be carefully considered to meet each patient’s requirements. Butler and Mellor (2006) emphasise the importance of this to maintain motivation which is a key factor in weight management. This therefore proposes an

intricate balancing act of social, group aspects alongside enough individualised areas to ensure the programme is suitably patient-centred. When exploring instances where this occurred in the LWMP, such as when visual aids were used incorporating food items familiar to the participants, a positive response was received as personal connections were described. A testament to the possible long-term impact of this was when participants explained how they made dietary and lifestyle changes such as avoiding takeaway food shops due to visual aids alone. Ngoh and Shepherd (1997) suggest that this strategy of using visual aids which are familiar allows the image to be memorised for longer, making them more effective. This therefore leads to the recommendation that future sessions should maintain the concept of small groups, but also attempt to find ways of introducing more individualised activities. Further research to determine which specific factors would value this approach may be beneficial.

Despite areas of the LWMP empowering patients and helping progression with increased confidence and skills, there were post-programme concerns as participants presented dependence on dietitians. Literature suggests success in weight management often depends on self-efficacy and the results show participants who are not yet ready to continue alone (Mata *et al.*, 2010). It is appreciated that weight management is often difficult due to a lack of immediate benefits compared to the amount of sacrifices needed and the results shown are concerning (Rowberg, 2010). Furthermore, although many commercial programmes offer rapid weight loss which has been shown in the literature to frequently be regained, the LWMP aims to empower patients to engage in long-term gradual weight loss (Tangney *et al.*, 2005). However, rather than presenting individuals who are confident about independently managing their weight, this study highlights how participants in fact preferred control to be removed from them and for their dietary behaviours to be governed by a figure of authority who they feel 'knows best'. In commercial programmes such as Weight Watchers this behaviour is encouraged and are informed they will 'always be a Weight Watcher', implying an ontological state which can never be broken (Heyes, 2006). However, this level of practitioner dependence is excessive and deflects patients' responsibilities for their own health away from them. It is therefore proposed that a more even balance should be met where patients become more responsible for their own actions whilst still being supported by positive members of staff. When this is achieved it has been shown to result in higher rates of empowerment with patients setting and working towards their own goals (Leske *et al.*, 2012). This outcome would be favourable for the LWMP

For any changes to be sustainable, patients need a robust, post-programme support network (Perri & Corsica, 2004). This appeared to be one of the areas where participants felt there was room for improvement. In addition to a lack of support from the weight management programme, participants also complained of a lack of support from those close to them at home, with some mentioning they were frequently ridiculed about their weight and attendance at the programme. This combined with a lack of sustainable empowerment discussed previously illustrates how despite moderate short-term confidence found by socialising in the small group setting and the acquisition of new knowledge and dietary habits, for patients to truly succeed in weight management and to continue alone an effective post-programme support network must be in place. Novel methods have been suggested in the literature, such as online support programmes which are regarded as effective (Winett *et al.*, 2005). Additionally, simple follow up phone call services ran by nurses, or the introduction of a weight management support inventory gauging individual support requirements may be useful to reduce strains on healthcare professionals and empower patients (Reider and Ruderman, 2007). Furthermore, NHS health trainers have also been shown to improve health through behaviour change and may be useful for sustainable post-programme support (Gardner *et al.*, 2011).

This study did not aim to gather statistical data or to generalise from the views of a few, but rather provide an insight into the thoughts and feelings of the sample via focus groups. Although this process can reveal important information, opening up in front of a group and an unfamiliar researcher can be a daunting experience. To minimise these effects all participants were fully briefed prior to the commencement of the focus groups and the researcher also introduced himself as a neutral party to encourage open and honest responses and to prevent any potential bias. Despite best efforts, the effectiveness of these measures cannot be accurately ascertained. Furthermore, it should also be noted that the study sample was recruited only from participants who had completed the full 12 week programme and therefore did not account for attrition. Participants who had completed the programme may differ in ways from those who did not and perhaps it may be useful if future studies investigated this further. It should also be noted that the focus groups took place immediately after the final programme session and the results do not account for any post-programme changes in thoughts and feelings. This is important as approximately 50% of weight lost by obese patients during weight management programmes is typically regained within 1 year (Byrne, 2003). Future research should consider addressing this issue by implementing follow-

up focus groups at appropriate intervals. Additionally, it should be recognised that there are currently no official guidelines regarding the design and production of health service weight management programmes, therefore there may be programme to programme variations and the results represent participants' experiences of the LWMP only.

This study illustrates how participants in general offered a positive response towards the LWMP and enjoyed new found skills, knowledge and confidence in many areas. Furthermore, the programmes informative content and friendly, informal group elements were also highly regarded. However, despite these comments various issues emerged referring to a perceived lack of individualised treatment, over-dependence on healthcare professionals and inadequate follow up support, prompting suggestions for future changes within the programme. These concerns together with study design limitations also revealed additional opportunities for future research investigating attrition and the long-term effects of health service weight management programmes. Despite these issues, the results of this study and previous quantitative work suggest the LWMP provided both an appealing and effective method of weight management which patients found beneficial (Mullarkey, 2011). It is hoped that this evidence, combined with existing literature and future efforts will help the knowledge base in this field to not only grow, but may also allow the LWMP team and others to continue with the effective provision and improvement of weight management services.

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**Conflict of Interest**

The authors declare that there are no conflicts of interest.