

What a weight loss programme should contain if people with obesity were asked - A qualitative analysis within the DO:IT study

Christina Jessen-Winge (✉ cjwi@kp.dk)

Syddansk Universitet <https://orcid.org/0000-0001-8323-8863>

Pia Maria Ilvig

Syddansk Universitet

Heather Fritz

Wayne State University

Carl J. Brandt

Syddansk Universitet

Kim Lee

Syddansk Universitet

Jeanette Reffstrup Christensen

Syddansk Universitet

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Abstract

Background Currently 1.9 billion adults worldwide are estimated to be overweight or obese. In Denmark the municipalities hold the responsibility to deliver weight loss programmes to overweight and obese citizens. There has been a tendency to assume that obesity reduction programmes that work in specialized hospital settings are directly transferrable to the municipalities. However, municipality-based weight loss programmes have not produced clinically significant reductions in body weight. Differential success rates between hospital and municipal settings may be due to a discrepancy between research evidence and needs of people with obesity. The first step in developing a weight loss programme designed for the municipalities is to understand what a programme should contain, if people with obesity were asked. The aim of this study was to examine what people with obesity find important in a weight loss programme to make the weight loss successful and maintained.

Methods We used a qualitative, explorative, descriptive design drawing on hermeneutical reflection with individual interviews. We included men and women age 17 and older with a BMI ≥ 25 kg/m². Participants were recruited from the wait lists of 13 municipality programmes and through Facebook posts. Data were analyzed using content analysis.

Results Thirty-four participants with overweight or obesity were individually interviewed (age between 19 – 74). Findings suggest that weight loss programmes should support the participants in structuring days, not with restrictions but with replacement activities. Programmes should also aide individuals with taking one thing at a time and facilitating social support from friends, health professionals and peers. Diet and exercise were expressed as important content in a weight loss programme, but as having a negative meaning.

Conclusion People with obesity wish to have a structured approach to weight loss that focuses on habits, social support and preserving the positive meaning of activities.

Background

Currently 1.9 billion adults worldwide are estimated to be overweight or obese with rates projected to continue to increase (1). Though estimates vary, in Denmark 40–55% of the population is overweight or obese (2) with the prevalence being higher among males than females (3). Overweight and obesity increase the risk of developing type 2 diabetes, heart disease, and stroke (4). Obesity is also associated with social discrimination (4) and difficulties participating in daily occupations like shopping and dancing (5,6) which negatively influences quality of life (7). The Danish Health Authority recommends weight loss programmes to reduce the occurrence of overweight and obesity, (2) and in Denmark, the municipalities are responsible for delivering such treatments to their residents (8).

Dietary changes in combination with physical activity remain the frontline non-pharmacological treatment for people who are overweight or obese (9–12). Decades of research demonstrate, however, that individuals face a myriad of challenges when changing those behaviors. As such, most programmes go beyond providing educational content and include multiple behavior change strategies such as goal setting, action planning, or self-monitoring (13–15). There is evidence that some weight loss programmes can result in significant weight reduction (16,17). The most successful programmes, however, are often lengthy, dose intensive, and require specialist interventionists (17). While there has been a tendency to assume that these results are transferrable to municipal programmes, data suggest that this is not the case (18).

There are several plausible explanations for the reported lack of efficacy of municipal weight loss programmes. Municipal programmes do include education about diet, exercise and different forms of cognitive therapy but those components are not standardized, which contributes to a high degree of heterogeneity in terms of programme content, delivery structure and dose (19). Another explanation could be that Danish people who receive obesity treatment through municipal programmes have different needs and expectations for weight loss programmes than people who choose to participate in large, intensive weight loss trials conducted in hospitals (18). Since the municipalities already offer programmes that include content on diet and exercise (19), it is possible that another challenge with the programmes stem from a lack of understanding about “how” the municipalities should implement the content and best support the weight loss and maintenance process (20). Building an effective municipal-based weight loss programme requires an understanding of existing research evidence as well as the perspectives of people with obesity (21).

Our long-term goal is to develop an evidence-based programme to reduce overweight and obesity and enhance the quality of weight loss programmes offered by the Danish municipalities. The programme is called Danish Obesity Intervention Trial (DO:IT). The first step in this process is to understand how a weight loss programme should be designed if people with obesity were asked (21). Qualitative evaluations from people who have attended weight loss programmes in general show that individuals prefer to build trustful and supportive relationships with health professionals and peers and focus on motivation before being pushed to change their exercise and dietary behaviors (20,22–24). These evaluations are based on individuals’ who have completed an existing programme. It is also important to understand what people with obesity who have never attended a weight loss programme would want in a municipal programme. Understanding their perspectives and creating a programme based on those understandings could influence more people to seek out weight loss services and lead to greater programme

participation and success. The aim with the present study was to understand what people with obesity who have not sought out municipal weight loss services would want in a programme.

Methods

A qualitative, explorative and descriptive design drawing on hermeneutical reflection was chosen to explore what people with obesity desire in a weight loss programme (25). Ethical approval for this study was not necessary according to *The Regional Committee on Health Ethics for Southern Denmark*.

Recruitment and participants

Participants were males and females age 17 and older with a BMI \geq 25 kg/m². We included participants at two levels of readiness for addressing weight loss (26); those who had taken a step to lose weight by signing up for a municipal programme (preparation) and those who were contemplating change. The participants were thus recruited in two different ways.

The participants who had taken a step to lose weight were recruited from waiting lists for weight loss interventions offered by thirteen different municipalities in Denmark (Aarhus, Copenhagen, Esbjerg, Holsterbro, Odense, Randers, Slagelse, Skive, Svendborg, Syddjurs, Varde, Vejle and Vordingborg). Health professionals from the municipalities aided the research team in participant recruitment by phoning residents on the programme wait lists and making them aware of the study. Before contacting the residents, we sent health professionals a description of the project to be used in the recruiting process. Participants wanting to join the project gave verbal consent to the health professional to have their contact information forwarded to the research team.

Participants that were contemplating weight loss, but that had not taken steps towards signing up for a program were recruited through a Facebook post. Three of the authors (CJW, PMI, JRC) posted the invitation to on their Facebook pages. The post was thereafter shared 52 times. After contacting one of the authors, the participants got an invitation with the inclusion criteria for participation and information about the project.

Data Collection

Data was obtained from semi-structured interviews (27). The interview guide was divided into three sections. The first section contained questions about daily life starting with the question "Please describe a normal day." The second section had questions about experiences with earlier weight loss attempts. The third sections probed the participant's wishes for the content, form and dose of a weight loss programme.

The interview guide was pilot tested with two participants and the testing led the research team to re order the questions to promote a better flow in the interviews, but the questions stayed the same. The two test interviews were therefore included in the dataset. Signed informed consent was obtained from every participant prior to any data collection activities. The interviews were conducted by the first author and three female master students. The first author is an experienced interviewer. Each student practiced the interview and was evaluated for competency by the first author prior to conducting interviews on their own.

The data were collected between January 2018 and March 2018. The interviews were conducted in Danish and they lasted between 30–65 minutes and were conducted at a place and time convenient to the participant. Most of the interviews were conducted in participants' homes, but nine of them occurred in a University classroom.

Interviews were audio recorded. Each interviewer transcribed their own interviews.

Analysis

Transcripts were analyzed using content analysis (28). The analysis focused on the manifest and latent content in order to capture the descriptive and the interpretative understanding of the text (29). The analysis was carried out as a four step process (28,30). In the first step, two of the authors (CJW, KL) read the text twice to get an overall impression of the data. Second, the content related to the study aim was identified and divided into meaning units. In the third step, the meaning units were condensed and labeled with a code. All codes were then arranged into 12 subcategories and further into six categories, to give a comprehensive understanding of all the interviews (28). The subcategories and categories were discussed between the two authors (CJW, KL) who reached agreement. The content of each category was discussed, refined and modified during an iterative process until the themes seemed to fit the data in the best possible way. Finally, the other authors acted as peer reviewers and the findings were discussed. When different viewpoints arose, they were discussed and resolved through consensus. A native English scientific writer translated the quotations in the present study from Danish to English.

Results

Thirty-four participants were included in the study. They represented all regions in Denmark and had residence in both cities and rural areas. All of the participants had a wish to lose weight. Sixteen of them were recruited from the waiting list in the municipalities, eighteen contacted the researchers because of the post on Facebook.

[Table 1 near here]

Table 1: Participants included in the study

The qualitative data analysis revealed three main themes that reflect participants' wishes for a weight loss programme; *1. Creating a structure for success, 2. Needing supports to make up for gaps in willpower, 3. Changing to doing with positive meaning.* The following sections introduce each of these themes.

1. Creating a structure for success

When the participants talked about the opportunities for a weight loss they explained that it had to be one thing at a time. It was all about habits and they experienced that their days were filled up with habits related to their weight.

"I think it is about habits and there are so many. When I look at my daily life there are so many habits I need to change to reach the goal and I think it is not realistic to do it all at once."

One participant provided an example when explaining that the changes should start with breakfast and when a healthy breakfast was integrated in her daily life, she could then move on to change the habits she had related to lunch. Another participant wanted to take one day at a time. Start with doing exercise one day a week, then two days and so on to change the habit of not doing exercise. This understanding of changing one habit at a time is based on experience with diets. Almost all the participants had experienced failure with a weight loss attempt when going on a diet. They had experienced losing weight, but also with gaining double the weight lost back.

"I lost 20 kilos in three months, it was a really bad idea. I did not eat, I just drank coffee and smoked cigarettes. I starved (.....) and when I started eating my body just craved for more food and then I started getting really fat and gained 40 kilos."

The only result from diets were an unhealthy "elevator-weight" and a feeling of failure. One participant described it as a "smack in the face". At the same time, diets were regarded as boring and monotonous. There were so many restrictions and it felt like living in a jail:

"Yes you only live a little. It is just the same. Get up, eat the same every day, exercise. It is just the same every day. You live in a jail. It feels that way anyway. Off course, I've seen results but it is no fun for a longer period."

Despite these statements, most of the participants talked about a wish to learn to be more structured and find the energy to persevere with weight loss. For some, staying engaged in meaningful activities reduced the willpower that it took to stick to healthy behaviors.

"It is better if you have something to do, so you can divert the attention from looking at the clock and see now it is 11 o'clock where I usually do this and that. But if you are on to something else at 11 o'clock, then you don't think about eating."

The participants described this as "replacement-activities" from which they could be able to learn to do something new and through that, change their unhealthy habits. One participant gave an example with his habit of sitting on the sofa many hours during the day. This habit was combined with eating unhealthy snacks. He explained that if the sofa-habit were to change the change of the snack-habit would follow.

2. Needing supports to make up for gaps in willpower

Participants desired weight loss and hoped that they would someday be able to lose weight. They also spoke about the current and future consequences that the inability to lose weight had on their lives. Many participants expressed fears of getting sick or not being able to see their children grow up. They also spoke about clothes that they used to wear when they were slimmer and that they still kept it in their closets. Their prior experiences of not being able to maintain lost weight fed their fears about the future and negatively influenced their self-efficacy. They talked about themselves as being lazy, having a weak character and having no self-regulation. They blamed themselves for the failures.

"Yes I lost weight, I exercised but when I stopped I just couldn't any more. If I did not eat what was on the diet plan I got so unhappy. I punished myself by saying: 'you can't do shit' and all that stuff. And then I just gained the weight again."

Furthermore, the feeling of not being able to control their weight influenced their feelings about their appearance. They got sad when they looked in the mirror. Participants expressed being disappointed in their own looks and worried about how they looked to others', especially in public.

"Oh, but it is not good when you get a bad self-image, you are a really fat girl and you are ugly and look at your breasts - they hang down at your stomach and your stomach is so big."(...) "Frankly, I am so fat by now that I don't want to go to the swim and have people seeing me in a bikini."

The combination of feeling as though one had no willpower to persevere towards weight loss efforts and feeling 'fat' resulted in a negative feedback loop where the more despondent participants became over their weight, the less willpower they had to change the situation. It was easier for them to find excuses for not changing.

"I am good at those bad excuses even without knowing what is expected of me or knowing what I could win from doing it."

The psychological toll that obesity took on participants was also reflected in their desire for more support. They expressed that they did not think they could succeed on their own and provided examples of the types of supports they felt would be most useful. Specifically, participants noted that supports should vary and come from different networks including from families and friends, from others with obesity and from health professionals. While participants agreed that they needed support, they varied in what type of support would work for them. For example, some participants stated that they needed criticism from friends and family, such as hearing that they were "too fat" to get motivated for weight loss. For others, this type of criticism would make them start eating even more.

"...But it does not help... it will just mean that I go down to the city to buy candy and soda, ice cream and cake..."

This participant further explained that if somebody should support her in losing weight it should be somebody she respected, such as a boyfriend or a close friend.

When talking about staying committed to their weight loss efforts, the participants also noted that they needed more than verbal support. They needed friends and family to 'do' it with them, to agree to eat well and exercise together. One participant explained it like this:

IP: "Yes (...) that is why I often criticize my wife (laughing) because she does not want to go with me."

I: "It would be easier if you were doing it together?"

IP: "Yes, I like running, it is so difficult for me to exercise without her."

Being together with peers with obesity was also of great importance for many participants. They wanted to feel like a community and spend time with others in the same situation and exchange experiences, not just about weight and weight loss, but about everyday life as well.

"It doesn't have to be about weight loss all of it, we could discuss how people integrate and do stuff that could be integrated in the everyday life as long as we do it together."

Besides talking and listening to others, the opportunity to exercise with peers with obesity was of great importance. One participant explained that she hated running in the city because she felt that everybody saw how fat she was and how badly she was running:

"...but doing it in a community where we felt as 'US' and none of us are used to running, would be much better."

When losing weight the health professionals had a central role for the participants. The participants wanted health professionals to support them with knowledge and provide compliments and encouragement through the entire weight loss process. One participant described:

"It is like with alcoholics anonymous, we need the support to be available all the time."

3. Changing to doing with positive meaning

When the participants were asked directly to discuss the content that should be included in a weight loss programme most of the participants mentioned the importance of diet and exercise. Participants did not negate the need for knowledge about diet and physical activity, or the need to change their diet or activity levels. Participants emphasized, however, they wanted to have fun during the weight loss process. Further, they wanted the strategies they got from weight loss programmes to be applicable to their life circumstances. They had experienced that if this was not the case their efforts would not be successful.

Diet and exercise already had an enormous place in the participants' lives. Many of the participants were already doing exercise, most of them in a fitness center where they described coming many times during a week. Even when they were not physically exercising, some participants explained how they were thinking about it all the time:

"Yes, I run all the time....inside my head."

Among participants in our sample, exercise was never described as a fun activity, but more as something they had to do. Most participants discussed how they got it done on the way home from work or school, so that they could come home to relax and do the things they enjoyed.

“So I can, it is all about when it is around 2 o’clock or something like that, then, oohh, then it is like... should I go home to sleep or lay on the sofa or should I get it over with. It is the energy deciding it.”

Many of the participants talked about finding pleasure in many other activities such as reading a book or spending time with friend or families. One participant said *“exercise is good, but the sofa is better.”* Another participant gave an example from when she exercised regularly, as she was aiming to run five kilometers without a break. And for *“every step on the way I moved further and further away from the things I liked doing.”*

Furthermore, to exercise was to be continually confronted with one’s obesity. One participant explained that he got “obesity-exhausted” when doing exercise because he felt that everybody was looking at him, reminding him of his weight.

When it came to diet, participants described how they differentiated food from ‘diet’. Food was something fun to make and to share with others:

“Yes I know where the problem is but we like eating cheese and bread and in our house beer does not get too old – if you know what I mean.”

Food could be enjoyed. Diet, however, was much more sterile and prescriptive. It was about being healthy versus having enjoyment. One participant described it as going from a fun thing (making and eating food) to a healthy thing (doing exercise). Thus exercise competed or took away from other desired everyday activities, and having to constantly think about what one was eating changed the meaning of food and food-related activities.

Discussion

The aim of the present study was to understand what people with obesity find important in a weight loss programme without having ever participated in one. Our data suggest that participants desired a structured weight loss approach, that they needed varying levels of social support, and that they wished to change habits in a way that was fun and that did not devalue their existing meaningful activities. Participants’ perspectives support existing evidence regarding the desired components of weight loss programmes, while also suggesting new ways that the municipalities could integrate the desires and needs of people with overweight and obesity in the municipal weight loss programmes.

Creating a structure for success

Participants’ desire to structure their weight loss efforts by “doing one thing at a time” and using “replacement-activities” as a way for success is supported by prior research. Gallagher et al (2012) found that participants in a weight loss programme did better when they integrated weight loss-related activities into a routine and focused on only doing one thing at a time, often beginning with exercising (31). While most weight loss programmes discuss the importance of goal setting with participants, they may not be focusing on “one small thing at a time” (32). Structuring weight loss programmes to allow participants to focus on and succeed with one small change at a time may also increase self-efficacy, which has been consistently linked to positive behavior changes (33).

In addition, by focusing on small, sequential changes programmes could include training on habit formation (32). Habits are generally defined as behaviors that operate below conscious awareness and that are triggered by environmental cues. All behavior change requires modifying some habits (34). One technique, among others in developing new healthy habits, is using implementation intentions (35). Implementation intentions are a form of ‘if-then goal setting’ that has been linked to successful behavior change. For example, if participants are hungry and it’s not yet time to eat, they will then do a crossword puzzle. Since our findings suggest that participants are already using “replacement-activities,” the use of implementation intentions could be a way for weight loss programmes to assist participants in identifying and implementing even more replacement activities. A recent qualitative study by Cleo et al. suggested that participants found value in using replacement activities to change habits and that such approaches contributed to their successful weight loss maintenance (33). The participants expressed that they were able to maintain the new habits because they were easy to implement in their daily life (32).

Needing supports to make up for gaps in willpower

Participants reported that they sometimes felt lazy and as if they had a weak character. Further, they referred to themselves as being ugly. This way of describing the self may reflect the popular discourse of ‘healthism’, which suggests that health can be achieved through individual effort and discipline. From this point of view, people with obesity are characterized as lazy, self-indulgent and greedy (36). When this discourse is combined with the experiences of not being able to maintain weight loss, it is not surprising that participants felt unable to lose weight on their own. Existing research has noted the importance of social support to general health and wellbeing (38, 39). Specifically, the sense of being included in social groups increases the feeling of personal autonomy and thereby increase the belief that one is capable of producing

Loading [MathJax]/jax/output/CommonHTML/jax.js fects (37). Our participants specified that social support was particularly important to overcoming

gaps in willpower that stemmed from negative feelings about one's self. As such, municipalities should consider how best to integrate multiple levels of social support into weight loss programming. The support of health professionals and peers has especially been shown to be important to foster commitment to the weight loss process (24). Though participants in our study wished to include health professionals and peers in a weight loss programme, they also emphasized the need to include individuals in their closest social networks (e.g., significant others, family, or friends). Even though it is known that the close social network is essential in the development of overweight and obesity, those individuals are rarely directly included in weight loss programmes for adults (38). Including the closest network in weight loss programmes might support the "bridge" between the programme and the context of everyday life.

Changing to doing with positive meaning

Combining diet and exercise in a weight loss process is a common recommendation and therefore, it is not surprisingly that participants mentioned this as a wish for the content of a weight loss programme. Our participants, however, specified the different meanings of diet and exercise. Preparing and eating food were meaningful in a positive sense while diets and exercise had a negative meaning. These results are supported by a qualitative study from Thomas et al., in which participants attributed negative meanings to exercise due to the difficulties of engaging in exercise because of their bodyweight. The participants perceived that exercise was hard work whereas diets were seen as a "quick fix", but without a sustaining effect (39).

When the participants in our study discussed dietary changes and exercise they acknowledged the value of those behaviors for weight loss. Participants also pointed out that engaging in exercise and dieting were not always congruent with their personal values and norms. They also noted that such pursuits were physically and emotionally taxing and took time away from other activities that also contributed positively to their sense of health and wellbeing (40). Engaging in activities that are not congruent with one's own values and norms or that overwhelm one's emotional or physical capacities could result in negative consequences and activity imbalances (40). Activity imbalance and balance is a way to understand all the things that people do during the day and the entire life (41). To thrive, humans typically need to participate in a variety of activities that demand different skills and capacities (42). Thus, understanding of how recommended weight loss activities such as dietary changes and exercise effects the well-being and activity balance in everyday life should be a part of a weight loss programme.

Strength and limitation

The strengths of this study are the use of a purposeful, theoretically informed sampling strategy and the large social, economic, and geographically diverse sample. Thus, our participants represent broad perspectives that are essential in the development of a weight loss programme directed to the municipalities.

Our study was limited by our decision to allow participants to address the authors if they wanted to be interviewed. We made this choice to overcome the challenge of stigmatization. This decision may have led to a lack of representation from people with lower social status, those who do not use Facebook, or people who are not used to talking about experiences from their everyday life. Therefore the participants in the present study might not represent the experiences of all people with overweight or obesity.

Conclusion

The findings indicate that people with obesity desire a weight loss programme that is structured to help them change their habits one at a time. Findings also suggest that individuals wish to engage with multiple types of social supports throughout the weight loss process, especially those in their closest social networks. Lastly, participants acknowledged the importance of diet and exercise for weight loss. They believed that changing habits related to both would lead to success. However, they wanted assistance with integrating such activities into their everyday life in a way that was fun and meaningful so that the weight loss process would happen as part of a balanced life.

List Of Abbreviations

DO:IT – Danish Obesity Intervention Trial

BMI – Body Mass Index

I - Interviewer

IP – Interview participant

Declarations

Ethics approval and consent to participate

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According to 'The Regional Committees on Health Research Ethics for Southern Denmark' ethical approval for this study was not necessary.

The participants included in the study were all contacted by phone and were provided with a verbal explanation of the study. Agreement about time and place for the interviews were consented agreed upon on the phone. Subsequently, the participants received a participant information sheet by email to sign and deliver to the researcher at the time of the interview. Had they forgotten the consent form at the interview, they were handed a new information sheet to sign which they had time to read through before they signed the consenting form. Thus, the study complied with the ethical principles recommended by the Danish ministry of Higher Education and Science and the Helsinki Declaration (43).

Data was anonymized while data were transcribed and the data was restored in a save server at the University of Southern Denmark.

Consent for publication

Not applicable.

Availability of data and materials

The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

CJW and JRC designed the study. CJW and KL were involved in the data analysis and CJW, KL, JRC, and HF were involved in interpretation or the findings. CJW, PM, HF, CB, HJ, KM and JRC were involved in the drafting the manuscript. CJW, KL and JRC wrote the first draft. CJW, PM, HF, CB, HJ, KM and JRC all read and revised subsequent drafts and approved the final manuscript.

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Table

N = 34	Frequency
Gender	
Female	22
Male	12
Age	
19 – 30	8
31 – 50	7
51 – 70	17
70 +	1
Employment	
Student	8
Working	10
Unemployed	3
Pensionist	10
Seniors voluntarily working	3

Table 1: Participants included in the study