Original Article

nutrition and health

Nutrition and Health
1–8

DOI: 10.1177/02601060211001488
journals.sagepub.com/home/nah
SAGE

Friend or foe? A qualitative study exploring the relationship of people with obesity and food consumption

Valérie JV Broers[1], Jan De Mol[1], Stephan Van den Broucke[1] and Olivier Luminet[1,2]

Abstract

Background: Obesity is a major health problem worldwide, and one of its causes is unhealthy eating. A healthy diet should ensure that energy intake (calories) is in balance with energy expenditure, but in this paper a subjective experience of healthy eating will be discussed. Research has revealed many determinants of food consumption, but a more holistic view of food consumption is often overlooked. **Aim:** The aim was to go beyond identifying determinants of eating by exploring the experience of (healthy) food for people with obesity. **Methods:** Semi-structured interviews were conducted with eight patients with obesity. **Results:** Interpretative phenomenological analysis identified four superordinate themes: ambivalence in the emotional relationship with food, an obesogenic environment where it is less acceptable to society to be obese, an experience of unfairness in the relationship to eating in comparison with other people, and the parental role as an existential motivation to eat healthier. **Conclusion:** The relationship of people with obesity and food is highly complex and personal, and is influenced by the uncontrollability of the social and physical environment. These personal experiences of people with obesity should be taken into account in the psychological treatment of obesity. The current research adds to the mostly motivational determinants discovered with social cognition models, by showing the subjective experience of (healthy) food consumption for people with obesity.

Keywords

IPA, obesity, food, qualitative, relationship

Introduction

Food has different functions for people, including survival, social, cultural, symbolic, aesthetic and psychological functions. The function of food has changed from solely providing people with a source of nutrients and a way to survive to serving additional functions, such as a vehicle for social interaction, a symbolic function, and a medium for aesthetic expression (Rozin, 2005). Food can also have a psychological function, for instance for emotional eaters, who increase their food consumption in the face of negative emotions (Bruch, 1973). At the same time, the food environment has also changed, from an environment in which food was difficult to obtain to one where it is abundantly available, inexpensive and more dense in calories (Rozin, 2005). In contemporary western society it is no longer necessary to expend energy to obtain large amounts of food (Rozin, 2005). Instead, the environment has become obesogenic. The obesogenic nature of an environment has been defined as 'the sum of influences that the surroundings, opportunities or conditions of life have on promoting obesity in individuals or populations' (Swinburn et al., 1999, p. 564). Obesity, defined as an abnormal or excessive fat accumulation (WHO, 2020), is an important health risk because it enhances the probability of developing non-communicable diseases such as cardiovascular diseases, diabetes, musculoskeletal disorders and certain cancers. One of the possibilities to prevent obesity is to adopt a healthy diet (WHO, 2020). A healthy diet should ensure that energy intake (calories) is in balance with energy expenditure, and includes increasing consumption of fruit, vegetables, legumes, whole grains and nuts, while limiting

[1] Psychological Sciences Research Institute, Université Catholique de Louvain, Belgium
[2] Fund for Scientific Research (FRS-FNRS), Belgium

Corresponding author:
Olivier Luminet, Psychological Sciences Research Institute, Université Catholique de Louvain, 10 Place Cardinal Mercier, 1348 Louvain-la-Neuve, Belgium.
Email: olivier.luminet@uclouvain.be

fat and free sugar intake (WHO, 2020). What constitutes a healthy diet can be perceived differently, however, so it is important to keep in mind that this paper will discuss a subjective experience of healthy eating. In order to improve the healthiness of diets, it is important to understand the ways in which people with obesity experience their relationship with (healthy) food to better understand the complexity of the problem.

Although a large body of research exists on the determinants of (healthy) food consumption, most of this research consists of quantitative studies based on predefined assumptions. This quantitative research is often based on theoretical models of behaviour change, such as the Health Belief Model (Rosenstock, 1974), social cognition theory (Bandura, 1986), or the Theory of Planned Behaviour (TPB; Ajzen, 1991). One review reported that the effect size of social cognition models ranged from 0.10 to 0.60 for behavioural intentions, and from 0.05 to 0.44 for behaviour itself (Conner and Norman, 2015). While these social cognition models can explain a significant proportion of (the intention to perform) health related behaviour, they have also been criticised for explaining an insufficient amount of the variance in the behaviour (Conner and Norman, 2015). Some authors also suggest that models like the TPB can only explain rational behaviour-change because emotional and arousal aspects are not mentioned specifically (Oliver and Berger, 1979). Other variables must therefore be identified to complement social cognition models and explain more variance. Furthermore, these models often apply to populations in general, but determinants of food behaviour may be different for people with obesity. To that effect, qualitative methods can be used to identify potential factors that may have been overlooked in the construction of the theoretical models.

Qualitative studies can give more insight into additional determinants of food consumption for people with obesity but they can also go beyond simple determinants to show a more holistic picture of the experience of food. One qualitative study showed the psychological factors associated with regaining weight among women with obesity who had previously lost weight: failure to achieve weight goals, dissatisfaction with the weight achieved, the tendency to evaluate self-worth in terms of weight and shape, a lack of vigilance with regard to weight control, a dichotomous (black-and-white) thinking style and the tendency to use eating to regulate mood (Byrne et al., 2003). But going beyond determinants, food choice can also be referred to as a multidimensional experience (Antin and Hunt, 2012); this latter study showed that the social and cultural function of food, as well as the structural environment, was important for food choice for young African American women at risk for obesity. This approach emphasised *why* factors of food choice proved important, instead of only emphasising *which* factors of food choice proved important (Antin and Hunt, 2012). Another study also showed the importance of the social function of food in family relationships among adolescents with obesity; both in the one-to-one relationship with other family members and in the functioning of the family as a whole (Lachal et al., 2012). The social function of food was represented in the organisation of meals as a space for expression of family cohesion and structuring, and food as a means of expressing love and control over relationships (Lachal et al., 2012). These examples show the added benefit of using qualitative research to discover determinants and functions of food for people with obesity specifically.

The current study aimed to add to the existing literature by exploring the experience Belgian people with obesity have with (healthy) food and being obese. By using an exploratory, qualitative design, we wanted to discover new elements of the experience that people with obesity have with food, which are not mentioned in the theoretical models but may help to explain more of their actual behaviour. The aim was to obtain a more holistic view of their experience with food instead of simple determinants. The research question was: how do people with obesity experience food, and particularly healthy food, in their daily life?

Materials and methods

Data analysis

Interpretative phenomenological analysis (IPA; Smith, 1996) focusses on personal meaning and sense making in a particular context by people who share a particular experience, in this case for Belgian people with obesity and their experience with food on a daily basis (Smith et al., 2009). This process, whereby researchers interpret how people try to make sense of a certain experience, is also called a double hermeneutic or dual interpretation process (Smith and Osborn, 2008). It takes a critical realist (or post-positivist) epistemological position. This implies that participants may not be able to communicate everything they experience, and therefore it is necessary to go beyond the verbatim and interpret the information that is received (Harper, 2011). This approach is in line with our research question as we expect people with obesity to provide us with novel insights into their experience of food while being obese but, at the same time, we understand that it is difficult to describe the entire experience so we cannot observe all processes directly.

The analysis of the interviews was based on the six steps explained by Smith et al. (2009). The first step consisted of reading and re-reading of the transcriptions of the interviews. The second step involved initial coding on the right side of the text, which consisted of both descriptive notes (descriptive comments) and more interpretative notes (conceptual comments). Step three involved the development of emergent themes, which were written on the left side of the text. Emerged themes were developed on the basis of the initial noting by creating concise sentences that capture the crucial psychological essence of a part of the data. Step four consisted of searching for connections across emergent themes by developing ‘super ordinate

themes', i.e. the researchers' interpretation of the experience of the participants. In step five, the researcher moved to the next case and repeated the process. Finally, step six consisted of looking for patterns across cases. The first author conducted the analysis. She was guided in all steps by the second author, especially in the development of emergent themes and super ordinate themes. Investigator triangulation was obtained by discussing the themes and the notes that inspired them, until consensus was obtained.

Participants and recruitment

Purposive sampling was used to select participants in view of composing a sample that was as homogenous as possible, in line with the requirements for IPA. The participants were not intended to represent the population of people with obesity, but rather the perspective of being obese. The participants were sampled from the Dutch-speaking part of Belgium, and recruited with the help of an endocrinologist working at the obesity clinic of the University Hospital UZ-VUB in Brussels. The obesity clinic offers a multidisciplinary approach to treat obesity involving endocrinologists, dietitians, psychologists, surgeons and physical therapists. Participants were selected among the patients at the clinic on the basis of a body mass index (BMI) > 30 kg/m^2 [indicating obesity according to the World Health Organisation (WHO) classification], Belgian nationality, being older than 18 years old, and speaking Dutch. Nine participants were recruited for the study, which is appropriate for an IPA analysis (Smith et al., 2009). IPA studies concentrate more on depth, rather than breadth and therefore data collection was concluded once enough rich and meaningful data was obtained to better understand the relationship with food of people with obesity (Pietkiewicz and Smith, 2014). As the BMI of one participant was below 30 kg/m^2, this person was excluded from the study after data collection. The final sample consisted of five women and three men, with ages ranging between 19 and 54 years [mean (M) = 32.88, standard deviation (SD) = 10.49], and BMI between 32.1 and 47.3 kg/m^2 (M = 41.49, SD = 5.15). All patients had come to the university hospital after having tried to decrease their obesity in other ways without result. Some patients were considering surgery to reduce their body weight. None of the participants were consulting a physician for the first time in relation to their obesity, although for some it was their first meeting with this physician.

Data collection

The endocrinologist asked patients to participate in the study when they came to the hospital for a consultation, clearly stating that this was not an obligation of the program and that patients were free to decide whether they wanted to participate. When patients agreed to participate, they could choose to do the interview immediately after their consultation or to make an appointment for their next visit. The interviews were conducted by the first author once per participant in a room in the hospital, and lasted on average 45 min. The interviews were semi-structured and included four mandatory questions (Table 1). An example of a question is: "What does food mean to you?" These questions served as guidelines. When a related topic occurred during the interview, other questions were asked to explore the respondent's sense making in more detail. When participants did not go into much detail, probes were used such as "Can you tell me more about this?". The audio-files of the interviews were transcribed verbatim. The interviews were conducted in Dutch and were translated to English for the purpose of the article by the first author, who is a native Dutch speaker with an advanced knowledge of the English language (C-level).

Table 1. Interview guide for the semi-structured interviews.

1. Can you tell me a bit about yourself?
2. What does food mean to you?
3. What does eating healthily mean to you?
4. How important is it for you to eat healthily?

Table 2. Overview of the table of master themes and superordinate themes.

Superordinate themes	Master themes
Ambivalence in emotional relationship with food consumption	– Food is two extremes: positive and negative – Comfort food turns into a vicious cycle – Confusing and frustrating relationship with food
Society is creating an obesogenic environment in which it is less acceptable to be obese	– Difficulty of influence of family members – Ease of unhealthy consumption – Feeling of no control – Family members setting a bad example
Experience of unfairness in relationship to food consumption in comparison towith other people	– Wish to be like people without obesity – Unfairness – Comparison to other people – Unfairness – Comparison with other people
Existential motivation to eat healthier: parental role	– Provider of healthy food for children – Memories of childhood – Parental role

Researchers' perspectives

The first author, who was a PhD student of (Health) Psychology at the time of conducting the study with some experience in qualitative methods, conducted the interviews and the analyses. Because she was a beginner in the

Table 3. Verbatim quotes of the participants regarding the superordinate theme "Ambivalence in emotional relationship with food consumption."

"On the one hand you want to eat something healthy and on the other hand you want to, well, eat something unhealthy." . . . "There are two sides sometimes." . . . "If you eat a durum kebab and in the evening, before you go to bed: "well I should have had vegetables instead of this", no because of that it is really twofold."
"Food, for me, in some moments it is a comfort and in other moments it is actually my biggest enemy. Food, you think sometimes, is really two extremes, comfort, joy and on the other side it is my enemy. That you really think, that is not possible, that it can really comfort me when I am sad and can make me happy, and on the other side you are my biggest enemy."
"I love to eat. I will be honest about it, I can really enjoy it." . . . "Food is also a comfort. I mean, when I am struggling I would eat a piece of chocolate instead of a piece of fruit." . . . "It's frustrating." . . . "
It's just because you have to pay so much attention to what you eat, and sometimes it doesn't work and you go and stand on the scale and you have gained weight again, while you have been paying attention to what you eat all day, and then . . . well then. pff." . . . "You will have some extra "smarties" or something like that, you know?" "My body is at the moment like. how do I say that, confused. You are in a vicious cycle."

qualitative field, she was guided in all steps of this process by the second author, who is a university professor specialised in IPA. The third author is a university professor in the area of public health/health psychology and the fourth author is a university professor in the area of emotion and of health psychology. None of the authors had experienced overweight themselves, which may have provided an obstacle in understanding the experience of patients with obesity. On the other hand, having no personal experience with obesity allowed for a more open view on the topic. All authors have personal experience with food, as they consume both healthy and unhealthy foods. A bracketing process was conducted by discussing the assumptions that the researchers might hold on the basis of their own experiences in order to try to set aside their own beliefs, thoughts and preconceived notions about the phenomenon under investigation (Crotty, 1996). This process improves the validity of the data collection and analytic process because of the persistent effort of authors not to impose their own understanding and constructions on the data (Ahern, 1999) and has been used in other IPA studies (Hellemans et al., 2011). The main assumptions of the first researcher refer to existing theoretical models of behaviour change and results of previous studies that were published, mainly on the quantitative side. These assumptions were discussed with the second author to keep an open mind during the collection and interpretation of the data.

Results

Four superordinate themes emerged from the analysis of the transcribed interview (Table 2). Each superordinate theme was named and will be discussed with reference to translated verbatim quotes from the participants.

Ambivalence in emotional relationship with food consumption

Several people with obesity described their emotional relationship with food, with food being considered as both positive and negative; see Table 3 for verbatim quotes of the participants. The same persons described positive feelings such as pleasure, fun and comfort but also negative feelings such as guilt and frustration. One participant described that food represents two extremes for her: comfort and joy but it is also her enemy. Participants also described their confusion about this relationship and wondered how it is possible to experience such mixed feelings about something. These mixed feelings are noticeable in situations where food is both a comfort and a fear. The vicious cycle that is created when food is being used as a comfort is described several times. One person mentioned the confusing aspect of a relationship like this by saying 'their body is confused'.

Society is creating an obesogenic environment where it is less acceptable to be obese

The participants described environments in which they felt a lack of control, which led them to eat unhealthier; see Table 4 for verbatim quotes of the participants. Some discussed the role of the physical environment, such as the availability of snack bars, and the unavailability of healthy foods at certain times and places. Other participants mentioned the influence of the social environment, such as family members who decide the time to eat or time constraints. One person with obesity also reported family members who set a bad example by eating big amounts of unhealthy food in front of the person with obesity and thus created an environment that tempted to eat unhealthily.

Experience of unfairness in relationship to food consumption in comparison with other people

The participants often compared themselves with other people, both with obesity and without, and described a feeling of unfairness; see Table 5 for verbatim quotes of the participants. Family members were often mentioned as reference persons, but also people on television were used for comparison. They described a feeling of unfairness regarding people they know who eat unhealthily without gaining weight. They were often frustrated because they put a lot of effort into their food behaviour without seeing any positive results, whereas other people seemed to not

Table 4. Verbatim quotes of the participants regarding the superordinate theme "Society is creating an obesogenic environment where it is less acceptable to be affected by obesity".

"I can eat healthy for a while but sometimes I also need fries, or fast-food or things like that. I think that we, in the world that we are in, that it is too easy to walk into asnack bar in comparison to making healthy food." "Sometimes you have no choice when it's late at night and you still need to eat something, then well. The only thing you can find is a fast-food restaurant or a snack bar."
"We eat when my parents decide to eat so that means that if we eat at seven, and I am hungry at six, yes. I can't start to eat dinner, but I will take a cookie or something like that quickly."
"If it would be only me then I would eat really, really healthy. Really, I would stick to the schedule. But it's because I don't have time, because I am with these three kids at home and my husband who works a lot, he is gone from 6 in the morning and he comes home after 8 so I really need to do everything."
"Usually it goes well, unless that my sister is around, she is someone who eats everything easily and my boyfriend too. He eats such a big bag of crisps; I don't know how many grams that is. And then he starts eating the crisps, and he is really skinny and then you think "come on, I can't eat that and you are sitting here enjoying: eating noisily." Like really eating next to me, and you are thinking, "come on, leave me alone and resist it"."

Table 5. Verbatim quotes of the participants regarding the superordinate theme "Experience of unfairness in relationship to food consumption in comparison towith other people".

"Sometimes you hear or see these people also on TV and stuff and they go . . . they eat a bag of crisps every day and they eat fries three times per week and. I am like: I don't do all these things." "It is very frustrating because you gain weight from the smallest things"
"I cannot look at something or I gained it. And other people, they can eat plates, let's say fries, I only have to look at it and." . . . "It is such a feeling of why me? Why me? I am so calm when I eat, no gulping, nothing and other people. they take a piece of meat and it's gone, and they don't gain anything."
"My brother eats exactly the same as me and he is super skinny."
"Everyone was saying to me and my mom: she probably eats a lot. If only everyone knew what I actually only eat."

Table 6. Verbatim quotes of the participants regarding the superordinate theme "Existential motivation to eat healthier: parental role".

"I wish I could walk the street normally with my children instead of hiding. Everyone is looking at me like, well, your children are skinny and you are like a fat goose."
"Especially with young children, you have to make sure that there are fresh vegetables. Before I had children, I would have said more easily: "come on, let's go get some fries and another pizza. Well, I miss that time sometimes."
"Well, I think that everyone in my surroundings pays attention but I know that there are parents that do not do that at all. They pour Cola bottles in the baby bottles when the children are one year old."
"And I try to pass it on to my children, that they definitely should eat healthy. I am not saying that my parents did not do this but uhm yes it's all sorts of things. Yes, they were not really aware of how many fruits and vegetables to eat per day." . . . "It's maybe, well, it's not really too late for me, I can still change, but for my children it is important that I pass it on from a young age."
"My mother sometimes has this feeling of well, I brought you into this world, the problem must have been with me during the pregnancy. Then, I always tell her: you can't take the blame."
"My grandmother used to prepare fresh vegetables, my mother has always prepared fresh vegetables, uh both the grandmothers from my father's and mother's side. There were always fresh vegetables uhm in that area, yes I was raised with fresh products."

have to think about their food consumption. They expressed a wish to be like those people who seem to be able to eat anything they want without gaining weight. One woman compared herself with other people with obesity, recounting a feeling of unfairness because, according to her, she is not eating as unhealthily as other people she knows, but she is still overweight.

Existential motivation to eat healthier: parental role

Some participants reported putting extra effort into providing healthy food for their children; see Table 6 for verbatim quotes of the participants. They mentioned that one of the reasons for eating healthily is actually setting a good example for children. When children did not like vegetables, for instance, they hid them creatively in dishes to make sure the children would eat them. Providing a healthy diet was described as an important role of being a parent, and parents setting a bad example for their children were being frowned upon. One participant also made a reference to her own parents, and to the fact that there was not much awareness for healthy eating during her childhood. Another participant discussed the guilt that she notices her mother feels regarding her weight. This parental role concerning food can also be seen in the way food often reminds people of their childhood, and how parents play an

important role concerning the preparation of food because they are setting the example for their children.

Discussion

The present exploratory study aimed to investigate how people with obesity experience their relationship with healthy food. The results of the IPA of the eight interviews revealed the complex relationship people with obesity have with food. Four superordinate themes emerged from the interviews: the ambivalence in the emotional relationship with food consumption, the presence of an obesogenic environment while society does not accept obesity, an experience of unfairness in relation to food consumption compared with other people, and the parental role as an existential motivation to eat healthier.

The ambivalence in the emotional relationship with food was expressed by participants as very positive at times, and very negative at other times; in a way, food represents two extremes. Some participants also indicated feeling guilty after consuming food as a comfort, which turned into a vicious cycle. This is in line with the concept of *emotional eating*, which states that, for some people, negative emotions lead to increased food consumption (Bruch, 1973). However, emotional eating is not only present among people with obesity (Telch and Agras, 1996), but also among people with no obesity (Newman et al., 2007). It does seem, however, that these conflicts are more personal for patients with obesity as food was described in terms of an actual person, more specifically 'the enemy'. This preoccupation with food was also described in a qualitative study of people with obesity undergoing bariatric surgery, whereby the preoccupation that was present before the surgery changed into a more pragmatic relationship of survival after surgery (Ogden et al., 2005). It could be that, for a person with obesity, it is more difficult to hold a distant and neutral view on food, which results in a constant struggle.

The second theme was society, which is creating an obesogenic environment where it is less acceptable to be obese. The physical environment seems to promote unhealthy food consumption but also the immediate social environment can be a barrier to healthy eating. Some family members even create tempting environments to eat unhealthily. Other studies have also pointed at the environment becoming more 'obesogenic' in the last decades (Lake and Townshend, 2006). For people with obesity, this creates a feeling of a decreased control over food consumption as was mentioned indirectly by participants. While this environment may be continuously creating temptations to eat unhealthily, a general shared belief seems to be that people should be capable of acting according to their intentions. Research has shown, however, that not only actual control over a behaviour is important for behaviour change, but also one's expectations of one's ability to control. The latter is referred to as self-efficacy (Bandura, 1977) or perceived control (Ajzen, 1991). The view that the physical and social environment are controllable, and that obesity is a lack of individual strength, appears to be a burden for people with obesity.

The third theme that emerged from the interviews was the experience of unfairness in relationship to food consumption compared with other people. People with obesity experience a lack of recognition for the efforts they make to tackle their obesity. The failure to engage in healthy behaviours is often considered to be a motivational problem, whereas this is not always the case. This perception of individual responsibility is also expressed in the blaming of people with obesity (Thomas et al., 2008). In contrast, people with obesity who compare their food consumption with that of other people are frustrated when they experience that others can eat unhealthily without gaining weight.

Finally, the fourth theme was the parental role as an existential motivation to eat healthier. In the case that society seems to condemn obesity as a personal failure, this could threaten the identity of people with obesity as parents. The parental role therefore became a strong motivation to eat healthier and to set a good example for their children. This finding corroborates that of previous studies (e.g., Lachal et al., 2012) showing the importance of food in family relationships of adolescents with obesity. Memories also play an important role when discussing the relationship with food, as it was mentioned that certain foods or recipes reminded participants of their family. The example that was portrayed by parents or grandparents was implied to have an effect on current food behaviour. This underlines the symbolic function of food for parenthood, in the sense that providing healthy meals is considered a parental responsibility.

The findings from this study could inform psychological interventions aimed at achieving weight loss in people with obesity, after confirming the results in a larger sample. A systematic review of the literature of interventions for obesity (Peckmezian and Hay, 2017) already recommended that weight loss interventions should incorporate behavioural and psychological components into a more holistic program of care. The aim of our study, to assume a more holistic view of the experience with food by people with obesity, is in line with that recommendation. Our results could be incorporated into those psychological interventions. The level of ambivalence that obese people experience in their relationship with food could, for instance, be reduced by decreasing the personal value that is attached to food. In addition, the efforts that people who suffer from obesity put into trying to lose weight should also be recognised, in order to counter the experience of obesity as a personal failure. Interventions could also aim at increasing the perceived control over the environment, instead of focussing on actual control. Finally, the parental role as an existential motivation to eat healthier is also something to keep in mind when treating parents with obesity.

Limitations and future research

While this study revealed important factors in the experience of people with obesity with food and eating, it is not

without limitations. One limitation is that the research question was quite broad, which may have limited the richness of the data. Future research could target a more specific subgroup of people with obesity, especially when researching the importance of the motivation concerning the parental role. The aim of the current study was not to show a representative experience of all people with obesity, but of the experience of the sample that was studied. It is therefore important to consider that these experiences cannot be generalised to people with obesity other than the participants in this study. Future studies could investigate the current findings with a larger sample in a quantitative research, in order to generalise the findings. Also, while in our study we only had one interview per patient, multiple interviews per person could have provided more depth in the answers.

Conclusion

The current research adds to the mostly motivational determinants discovered with social cognition models by researching the subjective experience of food consumption for people with obesity. The results provide a more detailed image of certain experiences for people with obesity, such as the ambivalence in the emotional relationship with food consumption and an obesogenic environment where it is less acceptable to society to be obese. Another important finding is the experience of unfairness in the relationship to eating in comparison with other people. Finally, there seems to be a strong sense of responsibility regarding the role of a parent in healthy food consumption, which could be further investigated. These positive and negative experiences could be considered in psychological weight-loss treatments for people with obesity. To conclude, it seems that the relationship of people with obesity and food is highly complex and contains many facets that are often influenced by the assumed perceptions of society.

Acknowledgements

The authors thank N. Van Wilder for her help with recruiting participants with obesity and Y. Gidron for contacting his colleagues to collaborate on the project.

Author contributions

VB conducted the interviews and the analyses. She was guided in all steps of this process by JM. VB constructed the superordinate themes; they were discussed with JM and renamed after mutual agreement. SB and OL provided feedback on all research phases. All authors were involved in writing the paper and had final approval of the submitted and published versions.

Availability of data and materials

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical approval

This study was conducted according to the guidelines laid down in the Declaration of Helsinki and was approved by the ethical commission of Brussels University Hospital, reference number 2015-018 and the ethical commision of the Psychological Sciences Research Institute of the Université Catholique de Louvain, reference number 2015-04. Written informed consent was obtained from all participants. To protect confidentiality, all interviews were numbered and names were removed. Interviews were stored on the password-protected personal computer of the first author and could not be accessed by other people.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by an Excellence research grant funded by the Walloon region (Belgium), (FOOD4GUT: Innovative nutrition research on obesity based on colic nutriments. Biological, behavioural and societal aspects, project # 1318148).

ORCID iD

Valérie JV Broers https://orcid.org/0000-0002-7529-7975

References

Ahern KJ (1999) Ten tips for reflexive bracketing. *Qualitative Health Research* 9(3): 407–411.

Ajzen I (1991) The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50: 179–211.

Antin TM and Hunt G (2012) Food choice as a multidimensional experience. A qualitative study with young African American women. *Appetite* 58(3): 856–863.

Bandura A (1977) *Social Learning Theory*. Englewood Cliffs: Prentice Hall.

Bandura A (1986) *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs: Prentice Hall.

Bruch H (1973) *Eating disorders. Obesity and anorexia nervosa*. Riverside: Behavior Science Book Service.

Byrne S, Cooper Z and Fairburn C (2003) Weight maintenance and relapse in obesity: a qualitative study. *International Journal of Obesity* 27(8): 955–962.

Conner MT and Norman P (2015) *Predicting and Changing Health Behavior: Research and Practice with Social Cognition Models*. Maidenhead: Open University Press.

Crotty M (1996) *Phenomenology and nursing research*. Melbourne: Churchill Livingston.

Harper D (2011) Choosing a qualitative research method. In Harper D and Thompson AR (eds) *Qualitative Research Methods in Mental Health and Psychotherapy*. Chichester: Wiley-Blackwell, pp. 83–98.

Hellemans S, De Mol J, Buysse A, et al. (2011) Therapeutic processes in multi-family groups for major depression: results of an interpretative phenomenological study. *Journal of Affective Disorders* 134(1–3): 226–234.

Lachal J, Speranza M, Taïeb O, et al. (2012) Qualitative research using photo-elicitation to explore the role of food in family relationships among obese adolescents. *Appetite* 58(3): 1099–1105.

Lake A and Townshend T (2006) Obesogenic environments: exploring the built and food environments. *The Journal of the Royal society for the Promotion of Health* 126(6): 262–267.

Newman E, O'Connor DB and Conner M (2007) Daily hassles and eating behavior: the role of cortisol reactivity status. *Psychoneuroendocrinology* 32(2): 125–132.

Ogden J, Clementi C, Aylwin S, et al. (2005) Exploring the impact of obesity surgery on patients' health status: a quantitative and qualitative study. *Obesity Surgery* 15(2): 266–272.

Oliver RL and Berger PK (1979) A path analysis of preventive health care decision models. *Journal of Consumer Research* 6(2): 113–122.

Peckmezian T and Hay P (2017) A systematic review and narrative synthesis of interventions for uncomplicated obesity: weight loss, well-being and impact on eating disorders. *Journal of Eating Disorders* 5(1): 15.

Pietkiewicz I and Smith JA (2014) A practical guide to using interpretative phenomenological analysis in qualitative research psychology. *Psychological Journal* 20(1): 7–14.

Rosenstock IM (1974) Historical origins of the health belief model. *Health Education Monographs* 2(4): 328–335.

Rozin P (2005) The meaning of food in our lives: a cross-cultural perspective on eating and well-being. Journal of Nutrition Education and Behavior 37: 107–112.

Smit JA (1996) Beyond the divide between cognition and discourse: using interpretative phenomenological analysis in health psychology. *Psychology and Health* 11: 261–271.

Smith JA and Osborn M (2008) Interpretative phenomenological analysis. In: Smith J (ed) *Qualitative Psychology: A Practical Guide to Research Methods*. London: Sage, pp. 53–80.

Smith JA, Flowers P and Larkin M (2009) *Interpretative Phenomenological Analysis: Theory. Method and Research*. London: Sage.

Swinburn B, Egger G and Raza F (1999) Dissecting obesogenic environments: the development and application of a framework for identifying and prioritizing environmental interventions for obesity. *Preventive Medicine* 29(6): 563–570.

Telch CF and Agras WS (1996) Do emotional states influence binge eating in the obese? *International Journal of Eating Disorders* 20(3): 271–279.

Thomas SL, Hyde J, Karunaratne A, et al. (2008) Being 'fat' in today's world: a qualitative study of the lived experiences of people with obesity in Australia. *Health expectations* 11(4): 321–330.

World Health Organization (2018) Obesity and overweight. Available at: http://www.who.int/mediacentre/factsheets/fs311/en/ (accessed 12 October 2018).