A healthier lifestyle for children with obesity and their parents: perceptions of healthcare professionals

Naomi de Pooter (2592562)

Word count: 9804

Vrije Universiteit Amsterdam – Health Sciences

VU supervisor: J. Halberstadt - j.halberstadt@vu.nl

Daily supervisor: E. van den Eynde – e.vandeneynde@erasmusmc.nl

MSc Health Sciences – Prevention and Public Health (27 EC)

21 August 2020

Abstract

Introduction: Care and support for children with obesity is important in stimulating behavioral change towards a healthier lifestyle. However, the perspective of healthcare professionals on obesity and treatment might differ from the perspective of children with obesity and their parents, which could affect communication and treatment outcomes.

Research question: The current study examines the facilitators, barriers, needs and possibilities that healthcare professionals observe in children with obesity and their parents in achieving a healthier lifestyle.

Method: Semi-structured interviews were conducted with eighteen healthcare professionals, including pediatricians, youth health care nurses and a youth health care physician, working in different municipalities across the Netherlands. The interviews were audio-recorded and transcribed, and a thematic content analysis was performed by using MAXQDA 2018.

Results: Seven themes emerged from the data-analysis. Within these themes, the main facilitators were support from parents and the social network. Main barriers were socio-emotional problems of the child, personal problems of parents, lack of parenting skills, parental lack of knowledge and skills regarding a healthier lifestyle, parental lack of acknowledgement of the problem, and a negative attitude of healthcare professionals. To overcome these barriers, the study participants suggested that children with obesity and their parents need a tailored approach in healthcare with a supportive healthcare professional. The participants also saw possibilities in changing the obesogenic environment.

Conclusion: Many of the factors that were mentioned by the participating healthcare professionals are consistent with the perspective of children with obesity and their parents found in previous studies. However, the results indicated that the perspectives might differ regarding the theme of motivation. Families could seem unmotivated to healthcare

professionals, but might have other reasons that hinder them in achieving a healthier lifestyle. Therefore, it is important that the healthcare professional and the patient exchange their perspectives in relation to this topic.

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Introduction

Over the past three decades, the number of children with obesity has increased considerably (World Health Organization, 2017). In 2019, 2,1% of children aged 4 to 17 had obesity in the Netherlands (Central Bureau for Statistics, 2019). Childhood obesity can have serious short-term and long-term consequences. In the short term, it can affect almost every organ system and is associated with hypertension, asthma, fatty liver disease, insulin resistance, and orthopedic problems (Daniels, 2009; Gilliland et al., 2003; Reilly et al., 2003). Obesity can also have an effect on the psychosocial health of the child, which is largely the result of bullying and stigmatization. This can cause, for example, low self esteem or behavioral problems (Reilly et al., 2003). The physical and psychosocial consequences of childhood obesity can lead to a decreased quality of life in children with obesity (Buttitta, Iliescu, Rousseau, & Guerrien, 2014). In the long-term, childhood obesity is associated with an increased risk of premature mortality, adult morbidity, and reduced educational, economic, and social chances. Moreover, children with obesity are likely to develop into adults with obesity (Reilly & Kelly, 2011).

Childhood obesity can be caused by many different factors in lifestyle, including high intakes of sugar sweetened beverages, high levels of sedentary behavior, and low levels of physical activity (Douthwaite, Summerbell, & Moore, 2006; Maffeis, 2000; Rennie, Johnson, & Jebb, 2005; Swinburn, Caterson, Seidell, & James, 2004). These direct causes are influenced by an interaction between different underlying environmental factors, including the physical, social and economical environment, and individual factors, including biological and psychosocial factors (Dahlgren & Whitehead, 1991). These underlying factors indirectly cause obesity to be more common amongst disadvantaged groups in society, such as children in lower socio-economic positions, and especially children with a migration background (Ruiz

et al., 2016). These socio-economic health differences remain challenging in battling childhood obesity (Beenackers, Nusselder, Oude Groeniger, & Van Lenthe, 2015).

The complexity of childhood obesity requires integrated care to achieve and maintain behavioral change towards a healthier lifestyle (Sijben, van der Velde, van Mil, Stroo, & Halberstadt, 2018; Wilfley et al., 2007; Yanovski & Yanovski, 2003). An important requisite for successful integrated care is for it to be part of an integrated approach that connects prevention, focused on creating a healthy environment for children in general, and obesity care and support, focused on the individual child with obesity and its parents. In addition, according to the Dutch 'National Model for Integrated Care for childhood overweight and obesity', effective obesity care goes beyond a healthy lifestyle, and also includes attention for the underlying individual and environmental causes of obesity. In other words, children with obesity and their parents should be supported in those areas in life that prevent them from adopting a healthier lifestyle (Sijben et al., 2018).

To tackle these underlying causes of childhood obesity, it is necessary that different healthcare professionals in the health care domain and in the social domain work together in every step of the integrated care process (Sijben et al., 2018). According to the Dutch 'National Model for Integrated Care for childhood overweight and obesity', the collaboration between different healthcare professionals requires an additional role: a coordinating professional. This professional is appointed to identify and monitor children with obesity, manage their care, and organize the collaboration between different healthcare professionals (Prochaska & DiClemente, 1992; Sijben et al., 2018). This approach is called case management and is proven to be effective in integrating the different services needed to support the complex needs of a disadvantaged group (Sutherland & Hayter, 2009). In the Netherlands, the role of coordinating professional can be fulfilled by different healthcare professionals, for example lifestyle coaches, nurse practitioners or youth health care nurses

(Sijben et al., 2018). The coordinating professional composes an individual treatment plan together with the child and its parents, and refers them to, for example, a combined lifestyle intervention for the treatment of obesity, or debt counselling or a community worker to tackle the underlying causes of obesity (Sijben et al., 2018). Combined lifestyle interventions can have a positive effect on weight loss and quality of life, and show particularly promising results when they are family-based (Ells et al., 2018).

An important prerequisite for permanent behavioral change towards a healthier lifestyle is self-management. During the integrated care process, it is important that the child and its parents maintain as much control as possible, but that they are supported by respectful healthcare professionals when needed (Partnerschap Overgewicht Nederland, 2010; Sijben et al., 2018). Self-management can be defined as health-promoting thoughts, goals, plans and actions and can be enhanced by teaching problem-solving, decision-making, action-planning, and goal-setting skills. It was found to positively affect diet, physical activity, weight loss and weight management (Thomason, Lukkahatai, Kawi, Connelly, & Inouye, 2016).

To improve the care and support for children with obesity and their parents, several studies have examined what helps and hinders them in achieving a healthier lifestyle (Cason-Wilkerson, Goldberg, Albright, Allison, & Haemer, 2015; Grootens-Wiegers, van den Eynde, Halberstadt, Seidell, & Dedding, 2020; Schalkwijk et al., 2015; Smith, Straker, McManus, & Fenner, 2014). Examples of barriers that were found are lack of time, stigma surrounding obesity, and challenges regarding the physical environment. Examples of facilitators that were found are support from the social environment, and insight into the long-term health consequences of obesity. These studies have mainly focused on the perceptions of children with obesity and their parents. However, research shows that the perspective of the healthcare professional on disease and treatment differs from the perspective of the patient in many diseases (Bass & Cohen, 1982; Kleinman, 1988; Mechanic, 1972; Stoeckle, Zola, &

Davidson, 1963; Zola, 1973). This can affect treatment outcomes and communication between the healthcare professional and the patient (Clark, 2005).

Therefore, to improve childhood obesity care, it is important to gain more insight into the perspective of the healthcare professional on the facilitators and barriers of children with obesity and their parents in achieving a healthier lifestyle. In addition, it is important to look at the perceptions of healthcare professionals on the needs of children with obesity and their parents to overcome the barriers. According to the Self-Determination Theory, behavioral change can be maintained more easily by meeting three basic psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2000). By gaining insight into which of these needs are not satisfied yet, ways to enhance self-motivation can be discovered, and long-lasting behavioral change is more likely to be established (Teixeira, Silva, Mata, Palmeira, & Markland, 2012). Lastly, it is useful to gain insight into the perceptions of healthcare professionals on the possibilities that children with obesity and their parents have to stimulate the facilitators, overcome the barriers and satisfy their psychological needs in order to achieve and maintain a healthier lifestyle. This could offer input for practical tools to optimize childhood obesity care. Therefore, the current study examines the facilitators, barriers, needs and possibilities that healthcare professionals observe in children with obesity and their parents in achieving a healthier lifestyle.

Method

A qualitative study design with in-depth interviews was adopted to examine the facilitators, barriers, needs and possibilities that healthcare professionals observe in children with obesity and their parents in achieving a healthier lifestyle.

Participants and recruitment

To include various perspectives, different healthcare professionals were recruited, including pediatricians, youth health care nurses and youth health care physicians. These healthcare professionals are involved in different steps of the integrated care process. The healthcare professionals were recruited via phone or email and the recruitment was based on convenience sampling. Three inclusion criteria were identified prior to the recruitment: (1) pediatricians were included when they worked in an institution appointed as a centre of expertise for childhood obesity by the Dutch association for pediatrics, (2) youth health care nurses and youth health care physicians were included when they worked in a municipality that contributed to the development of the Dutch 'National Model for Integrated Care for childhood overweight and obesity' and started the local implementation of this model, and (3) youth health care nurses were included if they were coordinating professionals for the local integrated care and support for childhood obesity. The municipalities that contributed to the development of the 'National Model for Integrated Care for childhood overweight and obesity' are spread across the Netherlands and consist of smaller and larger municipalities.

Data collection

Eighteen semi-structured interviews were conducted to explore the facilitators, barriers, needs and possibilities that the participants observe in children with obesity and their parents. All interviews were conducted by one researcher, EvdE. EvdE has studied Psychology of Health Behavior with a special focus on (childhood) obesity, and has experience in childhood obesity intervention development and obesity care research. She had a professional relationship with two of the participants prior to the study.

Each interview lasted approximately 60 minutes and took place in a quiet location chosen by the participant, often the workplace. During the interviews, no other people were

present besides the interviewer and the participant. All interviews started with an introduction, explaining the background of the researcher and the purpose of the study. An interview guide was used during the interviews, including two main focuses: (1) facilitators, barriers, needs and possibilities that the participants observe in children with obesity and their parents, and (2) facilitators, barriers, needs and possibilities that the participants experience themselves in supporting children with obesity and their parents. The current study only included the facilitators, barriers, needs and possibilities that the participants observe in children and their parents. Examples of questions regarding this particular focus are: "In your experience, what are factors that make it difficult for children with obesity and their parents to achieve a healthier lifestyle?" and "In your experience, what do children with obesity and their parents need to achieve a healthier lifestyle?". Probing questions were used based on Dahlgren and Whitehead's model of social determinants of health (Dahlgren & Whitehead, 1991).

The interviews were audio-recorded and transcribed verbatim, and the interviewer kept field notes, describing her reflections on the interviews. A member check was done by providing a summary of the interview transcript to ensure accuracy according to the participants (Green & Thorogood, 2018). Many themes reoccurred in the interviews, but it was not possible to reach saturation on all themes as the study had a very broad focus.

Data analysis

A thematic content analysis was performed by using the program MAXQDA 2018. To ensure triangulation of researchers, the data was coded and analysed by two researchers: EvdE, who also conducted the interviews, and NdP, a student in Health Sciences with a special interest in childhood obesity. The findings were discussed with a third researcher, JH. JH has a MSc in Clinical Psychology and a PhD in childhood obesity. She is the national project manager of Care for Obesity, the project at the Vrije Universiteit Amsterdam that was

responsible for the development of the Dutch 'National Model for Integrated Care for childhood overweight and obesity' (Care for Obesity, 2020; Sijben et al., 2018).

Before coding the data, the researchers read and summarized the interview transcripts to familiarize with the data. Next, inductive coding was done independently by the two researchers. Two coded transcripts were compared to reach consensus on a preliminary set of codes. Subsequently, both researchers created a coding tree independent from each other and compared them to reach consensus on a preliminary coding tree. The remaining part of the transcripts were coded with this coding tree. This was an iterative process and subcodes changed throughout the coding process. The changes were documented in a log. Finally, seven important themes were determined to answer the research question (Boeije, 2009). The participants of the study did not provide feedback on the findings.

Ethical considerations

This study was not subject to the Dutch Medical Research Involving Human Subjects Act (WMO). Therefore, the institutional review board of the VU Medical Centre waived the requirement of medical ethical approval, and the general ethical standards of the department were followed. Before conducting the interviews, informed consent was signed by the participants and consent for audio-recording was given once more verbally. To ensure the privacy of the participants, the interview transcripts were anonymized.

Results

Twenty healthcare professionals were approached to participate in the study. Two of them were not included: one did not respond and one did not have time for an interview. This resulted in eighteen participating healthcare professionals, working in eight different municipalities across the Netherlands. Details of the study participants can be found in Table 1.

Table 1

Details of the participating healthcare professionals

Participants	**Gender**	**Age (years)**	**Approximate work experience (years)[a]**	**Approximate work experience as coordinating professional (years)[b]**	**Age group of patients (years)[c]**
#1 Pediatrician	Female	47	12	N/A[d]	0-18
#2 Pediatrician	Female	51	18	N/A	0-18
#3 Pediatrician	Female	39	1	N/A	0-18
#4 Pediatrician	Female	43	5	N/A	0-18
#5 Pediatrician	Male	41	7	N/A	8-18
#6 Pediatrician	Female	49	5	N/A	0-18
#7 Youth health care nurse	Female	39	7	3	4-18
#8 Youth health care nurse	Female	39	Unknown	2,5	4-12
#9 Youth health care nurse	Female	53	Unknown	1,5	0-12
#10 Youth health care nurse	Female	49	Unknown	1,5	4-18
#11 Youth health care nurse	Female	53	Unknown	3,5	4-12
#12 Youth health care nurse	Female	46	10	1	0-9
#13 Youth health care nurse	Female	32	10	3	0-12
#14 Youth health care nurse	Female	30	6	1	0-12
#15 Youth health care nurse	Female	Unknown	Unknown	3,5	4-12
#16 Youth health care nurse	Female	60	12	3,5	12-18
#17 Youth health care nurse	Female	29	4,5	3,5	0-12
#18 Youth health care physician	Female	44	16	N/A	4-18

[a] Approximate work experience with children with obesity

[b] Only applicable for youth health care nurses as they are coordinating professionals according to the Dutch National Model for Integrated Care for childhood overweight and obesity

[c] The age group of patients the healthcare professional generally works with

[d] N/A = Not applicable

As mentioned in the introduction, childhood obesity can be directly caused by an unhealthy lifestyle, but this can be influenced by many underlying individual and environmental factors. First, the perspectives of the study participants regarding the lifestyle of children with obesity will be shortly described. Subsequently, the underlying factors of this unhealthy lifestyle that have been mentioned in the interviews will be summarized and explained more in detail with corresponding quotes of the different participating healthcare professionals. Finally, specific results for children with obesity in special education will be described. One of the participants worked as that a youth health care physician in special education, and has mentioned different underlying factors than the other participants. These factors are not included in the summary, but are shortly described at the end of the result section.

The participants gave several examples of an unhealthy lifestyle that they notice in children with obesity: disturbed eating patterns in teenagers, a lack of physical activity, and the increasing use of screens that affects the biorhythm and sedentary behavior:

"They go to bed late, because they are still playing games or texting, mobile phones to the bedroom and then they don't get out of bed in the morning, and they are too late and they don't have time to have breakfast anymore." (Youth health care nurse 7)

However, the participants indicated that there is always a story behind obesity and that this unhealthy lifestyle can be caused by many underlying factors. Therefore, achieving a healthier lifestyle can be very complicated for children with obesity and their parents:

"[…] Because overweight doesn't just happen, not with everybody. Look, there will be some where this is the case, but not with children. With children there is a story attached." (Youth health care nurse 8)

These underlying individual and environmental factors could hinder, but also help children with obesity and their parents in achieving a healthier lifestyle and the participants mentioned a large number of facilitators, barriers, needs and possibilities that they observe in families. A summary of these factors can be found in Table 2. Needs and possibilities were merged into one category as they showed many similarities. In order to gain more understanding about the role and importance of the different factors, the main facilitators, barriers, needs and possibilities for every theme will be described more in detail.

Table 2

Summary of facilitators, barriers, needs and possibilities for every theme

Themes	**Facilitators**	**Barriers**	**Needs and possibilities**
Individual factors of the child	Feeling good about themself Knowledge and understanding about a healthy lifestyle	Socio-emotional problems Puberty Behavioral problems	Gaining insight into the importance of a healthier lifestyle Learning to cope with temptations More attention for socio-emotional problems
Role of the parents	Parents being supportive Parents being involved Parents that set boundaries Parents functioning as a positive role-model	Parents that do not take responsibility for the problem Parents that are controlling Personal problems of parents Lack of parenting skills Lack of knowledge and skills Illiteracy	Supportive parents Financial support Learning parenting skills when children are still young More involvement of fathers in the health care for children with obesity
Family's motivation	Experiencing the burden of obesity Experiencing the benefits of a healthier lifestyle	Experiences of failure in the past Unrealistic expectations No request for help Parental lack of acknowledgment of the problem	Confidence that change is possible Acknowledging the problem Being motivated by things they find important

Physical environment	Healthy school environment	Obesogenic environment Policies at schools and sports clubs	Safe environment to play outside Making the healthy choice the easy choice More appropriate and approachable sports facilities Information about a healthy lifestyle
Socioeconomic environment	Support from social network	Low socioeconomic position Peer pressure to eat unhealthy Pressure of social media Family with different ideas about lifestyle Weight-related stigma in society Normalization of overweight	Social support The use of peer pressure to promote physical activity Buddy project to increase the feeling of support Role-models that inspire to achieve a healthier lifestyle
Culture		Traditional kitchen is not healthy Sporting is not common Misperceptions of a healthy weight Large role of food Not mastering the Dutch language	Consideration of cultural norms and values in advice about a healthier lifestyle or parenting
Family's experience with healthcare	Taking small steps Approachable healthcare Consistent communication Exclusion of a medical cause Healthcare professional visiting at home	Unrealistic expectations of healthcare Telling your story multiple times Negative attitude of healthcare professional Vagueness of the healthcare system Sports activities for children with obesity are not continuous	Supportive healthcare professional Feeling in control of the treatment A tailored approach More approachable healthcare professionals by using e-Health More attention to stigma in education of coordinating professionals

Individual factors of the child

In the domain of the individual child with obesity itself, the participants pointed out that socio-emotional problems, such as stress, bullying, and psychological problems can hinder children with obesity in achieving and maintaining behavioral change towards a healthier lifestyle. Especially puberty and the transition from primary school to secondary school can be a difficult phase for children with many changes in their life and body. Therefore, other problems might be more important at that moment than achieving a healthier lifestyle. In addition, teenagers start experimenting with their increasing freedom, which can lead to more snacking, less sleep and less physical activity. The participants believed that in order for children to achieve a healthier lifestyle it is necessary to address these socioemotional problems and to teach children how to cope with the temptations in the environment:

"Then you notice that if other things come in between, for example stress, worrying, feeling unhappy, emotion, whatever, then for a moment that is more important than maintaining that healthy lifestyle." (Pediatrician 2)

According to some participants it is also helpful for children to gain more knowledge about a healthy lifestyle, for example about the content of sugar sweetened beverages. However, other participants said that children often have the knowledge about a healthy lifestyle, but that there are other factors that hinder them in actually achieving it. Therefore, many participants were not merely talking about gaining knowledge (knowing that something works), but about really gaining understanding about a healthy lifestyle (understanding why something works), for example insight into the importance of sleep, insight into what it does to them when they spend the day behind a computer, or insight into why they do the things they do:

"Everybody knows it's better not to eat that entire bag of crisps. But at that moment that bag of crisps is there, all reason goes overboard and that stimulus, that impulse to do that is really strong." (Youth health care nurse 11)

"I will discuss what they notice the day after that, what does sleep do to you? Well, if they're able to describe that… They're not at that stage yet, to describe what it does." (Youth health care nurse 16)

Role of the parents

All participants mentioned the role of the parents of children with obesity in the journey towards a healthier lifestyle. Children are dependent on their parents for many things such as groceries, meals, and transportation. Some participants mentioned that the role of parents is particularly large in younger children, and that the responsibility shifts towards the child itself when it gets older:

"If you're very heavy at a young age, it is much clearer, you can gain the most from the parents. In puberty, for example, there is much more to be gained from the child itself and the child-parent interaction." (Pediatrician 5)

Therefore, participants emphasized the importance of support from parents and suggested that lifestyle changes should be implemented by the entire family. In this way, parents can function as a positive role model for their children, and the children are not the only ones in the family trying to achieve a healthier lifestyle. Some participants explicitly mentioned the need of involving the fathers in the health care, as they can have an important role in the family:

"Look a child cannot do it on its own. It is also dependent on the parents whether they take it into account with grocery shopping or help them find a sport or join them to a healthcare

professional. When they are 14, but even when they're older. Without that support they won't make it.' (Youth health care nurse 10)

However, participants indicated that some parents do not take responsibility for their child's weight, and sometimes place the responsibility on their children. Other parents feel very responsible and start controlling their children. According to the participants, both are not helpful for children with obesity:

"That parents also put a lot more responsibility on their child […], especially in teenagers, about what they eat and what they don't eat" (Pediatrician 3)

"We often see that parents get into the role of the controller. […] They start saying things like: would you do that? Remember what has been said? Now you're on the couch again, have you done some exercising today?" (Youth health care nurse 11)

Nevertheless, according to the participants, most parents are really trying to do what is best for their child. However, sometimes they do not have the required parenting skills or the required knowledge and skills about a healthy lifestyle. In addition, some parents might have other, personal, problems that are prioritized over a healthy lifestyle, such as psychosocial problems, financial issues, divorces, or housing problems:

"I really see people who don't have enough knowledge, who don't have the experience themselves, who are overweight and have an unhealthy lifestyle. And they might think: I have to do something with this, but they don't know what that should be […] and where to start." (Youth health care nurse 9)

"It [achieving a healthier lifestyle] is not always their first priority due to many other issues, distractions: poverty, informal care for older generations, other worries, fulfilling jobs, paying the house…" (Youth health care nurse 16)

Family's motivation

Regarding the individual factors of the child and the role of the parents, the participants indicated that many families want to change their lifestyle, but they are not able to do so because of other problems, such as socioemotional problems of the child or personal problems of parents:

"In the end they do want it, but they don't know how because there is so much going on." (Youth health care nurse 8)

However, many participants also mentioned that not every patient is motivated. Participants described patients as not motivated when they did not show up at consultation hours, had a certain body posture (e.g. slumped or with crossed arms) or were not taking any steps in changing their lifestyle when practical issues were solved. Particularly youth health care nurses emphasized the importance of motivation in order to achieve behavioral change. However, the participants did not specifically mention what their patients were not motivated to do and whether they had a lack of motivation to change their lifestyle or a lack of motivation to loose weight in general.

Several factors were mentioned by the participants that could negatively influence the family's motivation. First of all, some participants mentioned that sometimes patients have lost the confidence that it is possible for them to make changes in their lifestyle. This could be caused by unrealistic expectations of the treatment in advance or by repeating experiences of failure in the past:

"And the fact that it takes a lot of time is also where it often fails I think, that they don't see results quickly enough. And they all feel like it takes too much time to go to the dietician again and go there again and at a certain point they think never mind, nothing is working anyways and it will be alright." (Pediatrician 3)

Another factor that could negatively influence the motivation is the way that children with obesity and their parents enrol in treatment. Participants indicated that many families have not formulated a request for help themselves, but are diagnosed at a regular check-up with youth health care or are referred by other healthcare professionals:

"Most of them don't come to you with: I would like to do something with my overweight. Most of the time we identify it and then you will try whether they want to do something with it. But they don't really come with a question." (Youth health care nurse 14)

Lastly, participants mentioned the parental lack of acknowledgement of the problem as a negative influence on motivation. Some parents do not acknowledge that their child has overweight or obesity, especially in younger children. Other parents do acknowledge it, but do not find it problematic:

"Often people come, but they don't see the problem. And they are not willing to do something about it." (Pediatrician 4)

"Sometimes I wonder whether parents understand overweight or obesity. Do they understand the influence? Often I think they don't." (Youth health care nurse 17)

The participants also mentioned some factors that could positively influence the family's motivation. They indicated that the child should experience the short-term physical and social consequences of obesity in order for the family to acknowledge the problem, as not everybody understands or prioritizes the long-term medical consequences of obesity. These consequences include for example being teased, not being able to wear nice clothes or not being able to join peers in sports. Families might be more motivated when focusing on reducing these short-term consequences as this allows them to experience the benefits of the treatment:

"We might look at health and long-term, but I think children look at it in a different way, they look at the present moment. So you know, they might have the motivation because they want to wear those jeans or they want to sport with their friends. They can have other reasons to start working on it." (Youth health care nurse 10)

Physical environment

The obesogenic physical environment was also mentioned by many participants as a barrier for children with obesity and their parents in achieving a healthier lifestyle. Policies at schools were explicitly mentioned as a hindering factor as programmes to create a healthy school environment have not always been implemented correctly. The participants have suggested that the government could play a larger role in changing the obesogenic environment, for example by making the healthy choice the easiest choice, creating a safe environment for children to play outside, or providing more appropriate and approachable sports facilities. In addition, it could be useful to provide more information about a healthy lifestyle, for example at schools:

"What would really help of course is that the healthy choice is the easy choice, and that the unhealthy choice is the hard choice, that definitely helps." (Pediatrician 2)

Socioeconomic environment

Apart from the personal factors of children and parents and the challenges in the physical environment, the participants also mentioned that the socioeconomic environment of the family can play a role. Families with a lower socioeconomic position can have many problems, which can hinder them in achieving a healthier lifestyle as this might not be a priority anymore. Additionally, the participants noted that some people with a lower socioeconomic position cannot afford a healthier lifestyle:

"There are a lot of people in this area with a lower socioeconomic position in which, yes, healthy food is more expensive." (Pediatrician 4)

The participants also mentioned the possible influence of the social network on a healthy lifestyle, including the influence of peers, family and social media. Therefore, social support was mentioned as a very important factor in achieving a healthier lifestyle. However, this feeling of support can be negatively influenced by weight-related stigma in society, which in turn could negatively affect behavioral change:

"That is another very important aspect, the social support or the social network, so it doesn't work if you're the only one, everyone goes to that fast food place and you're the only one that can't eat fries. That doesn't work." (Pediatrician 2)

"It's the most stigmatised group we have in the Netherlands, because in all layers, everywhere in society, I mean: fat is lazy, stupid, parents have given the child too much..." (Pediatrician 1)

Another way in which the social environment could negatively influence behavioral change towards a healthier lifestyle is the normalization of overweight in society. Some participants indicated that especially people with a Moroccan or Turkish background can have a different definition of overweight or beauty. This could affect the acknowledgement of the problem:

"But what I particularly notice about cultural differences is that particularly Moroccan and Turkish people, they find it less of a problem when their child is a bit chubby, they actually think that's normal." (Pediatrician 3)

Nevertheless, the participants also saw some possibilities in the socioeconomic environment. For example, fitness apps could stimulate children to be more active, because

the apps allow them to see that others are doing it as well. In this way, peer pressure is used to promote physical activity. Another possibility that was mentioned by the participants is having role models talk about a healthy lifestyle:

"I think that involving an imam, of a mosque, yes that there is a lot to be gained in that." (Youth health care nurse 15)

Culture

Cultural aspects of families were mainly mentioned as barriers to achieve a healthier lifestyle and not as facilitators. The participants mainly talked about the Turkish, Moroccan and in one occasion the Polish culture. They indicated that in these cultures, sporting is not as common as it is in the Netherlands, there are misperceptions of a healthy weight, and (unhealthy) food plays a large role. In addition, some parents might not master the Dutch language, which complicates the communication with the healthcare professional. The participants suggested that it is important that the cultural norms and values are being taken into account by healthcare professionals when providing advice about a healthy lifestyle, but also about parenting skills as the way in which children are raised might be different in these cultures:

"We look very much from a Western perspective how it's supposed to be done, that healthy lifestyle […],but that approach does not always match with the way they raise their children." (Pediatrician 4)

Family's experience with healthcare

The experience of children with obesity and their parents with the healthcare they receive can also help or hinder them in achieving a healthier lifestyle. According to the participants, many families have had negative experiences with healthcare professionals and

feel resistance against youth health care or the municipal health service. The participants mentioned several factors that could negatively influence the family's experience with healthcare, such as unrealistic expectations of the treatment, patients having to tell their story multiple times, and a negative attitude of healthcare professionals. Therefore, the participants emphasized the importance of a supportive healthcare professional that does not address patients in a judgemental or didactic way:

"They are just very hurt people and children, so I think the attitude of the healthcare professional is very important. I think it's really important that people feel supported." (Pediatrician 1)

In addition, the participants suggested that it is important to choose a tailored approach for the treatment that fits a family as every patient has different needs:

"But also when you ask: what helps? It doesn't help to do things by default." (Youth health care nurse 14)

In some cases it might be necessary for parents to gain more understanding about obesity and its consequences. In other cases it is better to stay away from the focus on weight as this can make patients feel attacked and pressured:

"You notice that the scale puts an enormous pressure on children. […] And if you take away that pressure and they manage to start exercising and they're having fun, that causes them to be in a more positive flow and they can enjoy things more. And then automatically that helps to maintain steps in diet or other steps." (Youth health care nurse 10)

Furthermore, in many cases it is important that children and parents feel in control of their own treatment and decide which goals they want to achieve and where they want start. However, sometimes patients need the healthcare professional to take the lead:

"I think that's where it works or fails actually, that people feel heard and have the idea: I'm in control. I can get help, but I'm in control" (Youth health care nurse 7)

"Some find that a bit difficult. They would rather have an instruction with: do this and do that." (Youth health care nurse 16)

Lastly, in many cases it is important for children and parents that healthcare is approachable and that healthcare professionals keep in touch regularly with the family. However, some participants said that it might be better sometimes to take a step back and wait for the family to be ready for it. Other participants have indicated that this does not work:

"I also experienced that sometimes letting go makes them come back again. I sometimes have that nowadays, where I think: I would like to start up the integrated approach, but parents don't want it yet. Then I give them my email address and phone number […] Well some never call again, but I also experienced a couple of times that they did call or email." (Youth health care nurse 13)

"I have done it three times. With one child everything went alright. With the other two, it went dramatically. The parents… That the child gained 15 kilos in a year, a 10-year old child." (Youth health care nurse 15)

The main difference between pediatricians, youth health care nurses and the youth health care physician in the interviews was that pediatricians were a lot more focused on the hindering and helping factors of the healthcare system than youth health care professionals. Pediatricians have mentioned that the system can be vague for some patients and that it is sometimes unclear which healthcare professional does what. Patients see many different faces that sometimes give contradictory advice, which can also contribute to a negative experience:

"And some parents also say: I don't want it anymore, I see so many people, I don't know it anymore." (Pediatrician 4)

The results did not seem to be affected by the work experience of the participants, even though this varied substantially as can be seen in Table 1.

Special education

One of the participants worked as a youth healthcare physician in special education. Because of behavioral problems and learning difficulties, different facilitators, barriers, needs and possibilities were mentioned by this participant. The main facilitator that was mentioned was physically and mentally healthy parents that support each other and their child. The main barrier that was mentioned, was the lack of appropriate sporting facilities for children in special education. Therefore, the participant indicated that children in special education need continuous interventions with intensive supervision, close to home or school, or with transportation options.

Discussion

Main findings

In the current study, eighteen healthcare professionals were interviewed about the facilitators, barriers, needs and possibilities they observe in children with obesity and their parents in achieving a healthier lifestyle. The results revealed that there is not one dominating factor, but that the interaction between different individual and environmental aspects determines whether children with obesity and their parents are able to achieve and maintain a healthier lifestyle. The main facilitators that the participants mentioned were support from parents and the social network. The main barriers that were mentioned were socio-emotional problems of the child, personal problems of parents, lack of parenting skills, parental lack of

knowledge and skills regarding a healthy lifestyle, parental lack of acknowledgement of the problem, and a negative attitude of healthcare professionals. To overcome these barriers, the participants suggested that children with obesity and their parents need a tailored approach in healthcare with a supportive healthcare professional. The participants also saw possibilities in changing the physical environment to create a society that invites families to implement a healthier lifestyle. As the Self-Determination Theory also indicates, the goal is to create the optimal circumstances in the environment and healthcare of children with obesity and their parents to enhance the motivation in order to establish long-lasting behavioral change (Ryan & Deci, 2000).

Individual factors of the child and role of the parents. Many of the facilitators and barriers that were mentioned in the current study are consistent with previous research into the perceptions of children with obesity and their parents. Regarding the individual factors of the child, parents have suggested that the mental state of their child could be a barrier to participate in an obesity intervention (Brennan, Walkley, & Wilks, 2012). This is consistent with the view of the participating healthcare professionals that socio-emotional problems of the child could hinder behavioral change. Regarding the role of the parents, parents in previous studies have pointed out the difficulties in parenting and the need for skill building around parenting and healthy eating, which is also what the healthcare professionals in the current study indicated (Cason-Wilkerson et al., 2015; Schalkwijk et al., 2015). Children considered their parents to be the driving force behind behavioral change and have emphasized the need for support from parents (Murtagh, Dixey, & Rudolf, 2006; Schalkwijk et al., 2015). Again, this was also mentioned by the participants in the current study, which suggests that healthcare professionals are aware of the helping and hindering factors within families.

Regarding the support from parents, the participants in the current study mentioned that some parents can be negative and critical towards their child. Research shows that parents can adopt stigmatizing attitudes and behaviors, which may partly be caused by the stigma that parents experience themselves for having a child with obesity (Adams, Hicken, & Salehi, 1988; Crandall, 1995; Davison & Birch, 2004; Puhl & Latner, 2007). This emphasizes the need to highly involve parents of children with obesity in the care process in order to create a supportive environment for the child. The study participants highlighted the involvement of the father in this, as he can play an important role in the family, especially in the Turkish and Moroccan culture.

Physical environment. Children with obesity and their parents in previous studies have mentioned several factors in the physical environment that hinder them in achieving a healthier lifestyle. Examples are the lack of local, accessible, affordable, and enjoyable physical activity options for adolescents, unsafe neighbourhoods, and unhealthy food provided at schools (Alm et al., 2008; Cason-Wilkerson et al., 2015; Perry, Daniels, Bell, & Magarey, 2017; Schalkwijk et al., 2015; Smith et al., 2014). Schools that promote and provide healthier lifestyle choices were perceived as facilitating (Perry et al., 2017). All of these factors were also mentioned by participants in the current study, which indicates that healthcare professionals are well aware of the family's challenges in the physical environment.

Socioeconomic environment and culture. Factors regarding the socioeconomic environment that were mentioned in the current study were also mentioned in previous research. In a previous study, many families have indicated that their living situation complicates their journey towards a healthier lifestyle (Grootens-Wiegers et al., 2020). In addition, social interaction and support appear to be very important for children with obesity and their parents, which was also emphasized by the healthcare professionals in the current

study (Kelleher et al., 2017; Perry et al., 2017; Schalkwijk et al., 2015). The participants also suggested some ways in which healthcare professionals can enhance the feeling of support in their patients, for example by a buddy project or by involving a role model.

Stigma in society has been mentioned as a barrier to achieve a healthier lifestyle. However, some participants in the current study mentioned that experiencing the burden of obesity, for example being teased, can also be an important prerequisite for motivation. Nevertheless, previous research has shown that stigma negatively influences the willingness of children with obesity and their parents to attend a treatment programme for obesity (Kelleher et al., 2017). Furthermore, stigma can have a negative influence on eating behaviors and physical activity in children with obesity (Puhl & Latner, 2007).

Participants also mentioned the normalization of overweight, especially in non-Western cultures. This is consistent with research that shows that obesity is associated with poor health in Western countries obesity, but with power, strength and health in other regions in the world (Dapi, Omoloko, Janlert, Dahlgren, & Håglin, 2007). According to the participants, these and other cultural differences between the healthcare professional and their patient should be taken into account during the care process.

Family's experience with healthcare. Participants in the current study and children and parents in previous studies have emphasized the importance of approachable healthcare with a tailored approach (Dhaliwal et al., 2014; Grootens-Wiegers et al., 2020; Kelleher et al., 2017; Smith et al., 2014). In addition, the importance of a supportive healthcare professional with a positive attitude was pointed out (Kelleher et al., 2017; Puhl & Latner, 2007). However, healthcare professionals have been documented as common sources of stigma towards people with obesity, which could contribute to a negative experience with healthcare (Puhl & Brownell, 2006; Puhl & Latner, 2007). The way in which healthcare professionals

address the topic of weight appears to be particularly important for children with obesity and their parents. Terms such as ‘fat’, ‘obese’, and ‘extremely obese’ are perceived as stigmatizing, blaming and de-motivating by children with obesity and their parents, and terms such as 'unhealthy weight’ and ‘weight problem’ appear to be motivating to loose weight (Puhl, Peterson, & Luedicke, 2011). The results of the current study suggest that healthcare professionals are aware of the sensitivity of this topic as they have mentioned the importance of being non-judgemental in communicating about weight. Research has also shown that families prefer a more holistic approach of weight management rather than a focus on weight loss alone (Kelleher et al., 2017). This has also been mentioned by the participants in the current study.

As stigma amongst healthcare professionals is common, it could have influenced the results in the current study. Few participants have mentioned their own stigma, but some participants did mention the stigma of ‘some other healthcare professionals’. It is important to be aware of possible stigma amongst healthcare professionals, as it could undermine obesity treatment (Puhl et al., 2011).

One striking difference between pediatricians, youth health care nurses and the youth health care physician in the interviews was that the pediatricians were a lot more focused on the hindering and helping factors of the health care system, such as the vagueness of the system, than the youth health care professionals. This is remarkable as youth health care nurses are coordinating professionals according to the ‘National Model for Integrated Care for childhood overweight and obesity’, and would therefore be expected to be more aware of the problems within the healthcare system than pediatricians (Sijben et al., 2018). More research is necessary to explain this result.

Motivation. One result that could have been influenced by stigma amongst healthcare professionals is the fact that many participants mentioned the lack of motivation in some patients. All of the included participants emphasized that an unhealthy lifestyle can have many underlying causes, but at some point in the interviews many of them still pointed out one simple reason for not achieving behavioral change: the family's lack of motivation. Previous research has also found that on one hand healthcare professionals consider obesity as a disease, but on the other hand they believe that patients are responsible for their own weight loss (Caterson et al., 2019). This suggests that stigma plays a role.

In the interviews it was not exactly clear what the families were not motivated to do and whether they had a lack of motivation to change their lifestyle or a lack of motivation to loose weight in general. Research shows that children can have various reasons to be motivated to loose weight, and this can affect their behavior to reach that goal (Brown, Skelton, Perrin, & Skinner, 2016). Furthermore, people might be motivated to change their lifestyle, but when the motivation is not self-regulated and based on for example avoiding being told off by a dietician, maintenance of behavioral change is less likely to happen. Therefore, it is important to not only consider the quantity of motivation (motivated or not motivated), but also the quality of motivation (autonomous or controlled) (Sebire et al., 2018). However, the participants in the current study described patients as not motivated by means of their behavior and did not mention the underlying emotional aspects of this behavior. This suggests that they only considered the quantity of motivation and not the quality. All in all, the concept of motivation is not as simple as it may appear in the results section and it might not have been completely clear for the participants as well, as they have given contradictory statements in the interviews.

The participants in the current study have mentioned several aspects that could influence the family's motivation, including the lack of confidence that change is possible and

the process of enrolment in treatment. Skelton et al. (2012) also indicated that the lack of motivation that healthcare professionals perceive could be influenced by the fact that most families do not enrol in treatment programmes themselves, but are referred by other healthcare professionals. Therefore, it might take more time for healthcare professionals to motivate these families and prepare them for treatment as the families need to be supported in formulating their request for help first (Skelton et al., 2012). The youth health care nurses in the current study have also mentioned that many families have not formulated a request for help yet, which makes it difficult for healthcare professionals to address the sensitive topic of overweight. Children with obesity and their parents themselves also indicated that the approach, attitude, and language use of the referrer could be motivating or de-motivating (Grootens-Wiegers et al., 2020). The process of enrolment and referral, and particularly the way in which families are prepared for treatment, could also influence the expectations of families (Skelton et al., 2012). The healthcare professionals in the current study indicated that families can have unrealistic expectations of the treatment. Research shows that many families have trouble understanding the treatment process and expect the child to loose a substantial amount of weight in a short period of time. This might cause disappointment, which could lead to attrition and reduced motivation to participate in treatment in the future (Dhaliwal et al., 2014). Therefore, it is important to discuss the expectations of the family and also of the healthcare professional before the start and during the care process.

The participants also suggested that the parental lack of acknowledgement of the problem could influence the family's motivation. According to the participants, some parents do not acknowledge that their child has overweight. Other parents do acknowledge it, but do not find it problematic. Research has shown that more than 50% of parents underestimate their child's weight and that many parents underestimate the consequences of overweight and obesity (Mikhailovich & Morrison, 2007; Rietmeijer-Mentink, Paulis, van Middelkoop,

Bindels, & van der Wouden, 2013). This is problematic because parents are unlikely to change their behavior and lifestyle unless they acknowledge the need for these changes (Rhee, De Lago, Arscott-Mills, & Mehta, 2005). One possible explanation for this parental misconception could be the normalization of overweight in society, which was also mentioned by the study participants and earlier in the discussion. Because of the high prevalence of overweight and obesity amongst children, parents might perceive their child with overweight as normal and not different to others (Robinson, 2017). Another possible explanation for the lack of acknowledgement of the problem could be the stigmatisation around overweight and obesity in society. Parents might be reluctant to label their child as having overweight to prevent the child from being stigmatised and to prevent themselves from being blamed and criticized for having a child with overweight (Puhl & Latner, 2007; Towns & D'Auria, 2009). Social desirability bias could play a role here, as research shows that parents with obesity that are well-educated are more likely to misclassify their child's weight status. These parents might be more influenced by social desirability bias, because their education level leads to greater awareness of medical recommendations and health consequences of obesity, and their own weight status leads to embarrassment about the situation (Cullinan & Cawley, 2017).

The perceived lack of motivation might be a critical point where the perspective of the healthcare professional differs from the perspective of the child with obesity and its parents, which could negatively affect communication and treatment outcomes (Lachal et al., 2013). Families could seem unmotivated to healthcare professionals, but might have other problems or priorities that hinder them in achieving a healthier lifestyle. In addition, healthcare professionals might be focussed on the medical consequences of obesity. However, as mentioned by the participants, many families are not motivated by the medical consequences, but are motivated by other reasons, such as physical appearance and social considerations

(Alm et al., 2008; Lachal et al., 2013). Therefore, the participants suggested that it might be useful to focus on the short-term physical and social benefits during the care process.

Needs and possibilities. To overcome the barriers to achieve a healthier lifestyle, the participants have suggested that children with obesity and their parents need a tailored approach in healthcare with a supportive healthcare professional. In addition, they saw possibilities in changing the physical environment. As mentioned before, the goal is to create the optimal environment for the family's motivation to flourish in order to achieve and maintain a healthier lifestyle (Ryan & Deci, 2000).

In the research question, possibilities were defined as factors within children with obesity and their parents. However, the study participants have mainly given possibilities outside of families: in the physical environment and in the healthcare setting. A few possibilities of families themselves were mentioned, including gaining insight into the importance of a healthier lifestyle, learning to cope with temptations and acknowledging the problem, but the participants indicated that families need support in utilizing these possibilities. Therefore, the possibilities in the results were comparable to needs, which also include factors outside of families, and the categories were merged. Another reason for merging the needs and possibilities is the fact that the participants mentioned only a few factors for both categories, which suggests that the data saturation was not complete. The questions regarding needs and possibilities were only asked in half of the interviews due to time reasons, and participants might not have completely understood the questions as they did not always adequately answer it. Some participants also indicated that these particular questions were difficult to answer.

Strengths and limitations

Strengths of the current study include that the participating healthcare professionals are specialized in childhood obesity and their substantial experience with children with obesity increased the credibility of the results. In addition, the included healthcare professionals worked in eight different municipalities that are spread across the Netherlands and consist out of smaller and larger municipalities, which increased the variability of the participants. Furthermore, all interviews were conducted by the same researcher to increase the consistency of the evidence. Lastly, three researchers were involved in the data analysis: one researcher with little experience in the field of childhood obesity, and two researchers with more experience. Discussing the results from these different perspectives increased the confirmability of the study.

There are also several limitations to this study. First of all, a qualitative research design with in-depth interviews includes a risk of socially desirable answers. However, most topics that were discussed in the interviews were not associated with personal factors of the participating healthcare professionals themselves, but included factors associated with their patients. Therefore, social desirability bias might not have played a big role in relation to these topics. On the other hand, some topics did include personal factors of the study participants, for example regarding the attitude of healthcare professionals. In addition, the topic of motivation could have been a sensitive topic as motivating patients might be considered as the healthcare professional's responsibility. Therefore, in these particular topics, social desirability bias could have played a role.

Second, the healthcare professionals were recruited based on convenience sampling. This type of sampling can be vulnerable to biases and influences beyond the control of the researcher (Green & Thorogood, 2018). Usually in convenience sampling, no inclusion

criteria are identified prior to the subject selection. However, in the current study three inclusion criteria were identified: (1) pediatricians were included when they worked in an institution appointed as a centre of expertise for childhood obesity by the Dutch association for pediatrics, (2) youth health care nurses and youth health care physicians were included when they worked in a municipality that contributed to the development of the 'National Model for Integrated Care for childhood overweight and obesity' and started the local implementation of this model, and (3) youth health care nurses were included if they were coordinating professionals for the local integrated care and support for childhood obesity. The use of inclusion criteria could have decreased the limitations of convenience sampling.

Third, there was a lack of experts in the field of puberty and the transition from primary school to secondary school. Stimulating a healthier lifestyle is important during the transition from primary to secondary school because of the many changes in this period and the possible influences on lifestyle (Salvy, de la Haye, Bowker, & Hermans, 2012). However, some participating youth health care nurses only worked with children under 12 years of age and only one participant has given extensive information specifically about teenagers. Therefore, the results in this study might be primarily focused on younger children.

Recommendations

This study found several directions to explore further, both clinically and in research. First of all, the study participants have mentioned many facilitators, barriers, needs and possibilities within several themes on an individual and on an environmental level. The complexity of childhood obesity requires that strategies to improve lifestyle are implemented at these different levels to be more effective (Dahlgren & Whitehead, 1991). As mentioned in the introduction, this can be done with an integrated approach that combines prevention and integrated care (Sijben et al., 2018). In an integrated approach, the general socioeconomic,

cultural and environmental conditions can be improved by changing governmental policies. In addition, social and community networks can be strengthened by looking at ways to enhance the social support, for example with buddy projects. Lastly, as mentioned by the 'National Model for Integrated Care for childhood overweight and obesity', professionals in the health care domain and in the social domain should collaborate to support individual children with obesity and their parents. By combining these different strategies, long-lasting behavioral change for children with obesity is more likely to be established (Dahlgren & Whitehead, 1991; Sijben et al., 2018).

Regarding the treatment process, the current study emphasized the importance of the exchange of perspectives, motives and expectations between the child with obesity, its parents and the healthcare professional before and during the care process. Understanding the perspective of the patient is an important step in providing optimal support and can increase the chances of a successful treatment (Clark, 2005; Lachal et al., 2013). The results show that the participating healthcare professionals are well aware of the individual factors of the child and parents, and the challenges in the environment and healthcare, but that the perspectives might differ regarding the topic of motivation. In addition to discussing these differences, it might be useful to take a closer look at the process by which families are referred, enrolled and prepared for treatment as this could affect the family's motivation and expectations.

Furthermore, the participants suggested several opportunities for healthcare professionals to satisfy the needs of children with obesity and their parents and help them to utilize their possibilities. First of all, by highly involving parents in the care process, by making use of buddy projects, and by being aware of possible stigma and using thoughtful communication, in particular in relation to weight, healthcare professionals can help creating a supportive home environment, social environment and healthcare environment for children. Second, one participant mentioned the use of e-Health as a possibility to make healthcare

more approachable. Especially in regard to the recent events around COVID-19, e-Health is a promising alternative for healthcare professionals to stay in touch with their patients. Research shows that for childhood obesity treatment, communication between the healthcare professional and the patient through the internet is equally as effective as face-to-face contact (Cohen, Irby, Boles, Jordan, & Skelton, 2012). Lastly, healthcare professionals should use an approach that is tailored to a family's individual factors, motivation, and cultural background. According to the participants, every family has different needs and the approach in healthcare should be tailored to that.

Regarding future research, studies could increase the understanding about the interaction between the healthcare professional and the patient by conducting observations in the consultation room of the healthcare professionals. In addition, future research could include both healthcare professionals and children with obesity and their parents to make a better comparison of their perspectives. Furthermore, other healthcare professionals than pediatricians, youth health care nurses and youth health care physicians could be included to get a better picture of the perspectives in healthcare, and the facilitators, barriers, needs and possibilities that were mentioned in the current study, could be used to direct future research directly with children with obesity and their parents. Lastly, the current study shows that different factors might play a role in children with obesity that attend special education. With only one participant working in this field, no conclusions can be drawn about this target group in the current study and more research is necessary.

Conclusion

This study has provided more insight into the perceptions of healthcare professionals regarding the facilitators, barriers, needs and possibilities that children with obesity and their parents experience in achieving a healthier lifestyle. Many of the factors that were mentioned

by the participants are consistent with the perspective of families in previous research, which suggests that healthcare professionals are well aware of the challenges that children with obesity and their parents face. The results indicate that it is important that children with obesity are supported by their parents and their social network and that they need a tailored approach in healthcare with a supportive healthcare professional. In addition, changes in the physical environment should be advocated to create a society that invites families to implement a healthier lifestyle. The perspective of the healthcare professionals might differ from the perspective of the children with obesity and their parents regarding the theme of motivation. Therefore, it is important that the healthcare professional and the patient exchange their perspectives regarding this topic before the start and during the care process. This could increase the chances of children with obesity and their parents to successfully finish the care process and to achieve and maintain a healthier lifestyle.

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