PEC Innovation 1 (2022) 100074

Contents lists available at ScienceDirect

PEC Innovation

journal homepage: www.elsevier.com/locate/pecinn

Perspectives of healthcare professionals on facilitators, barriers and needs in children with obesity and their parents in achieving a healthier lifestyle

Naomi de Pooter [a,b,*,1], Emma van den Eynde [c,1], Hein Raat [d], Jacob C. Seidell [b], Erica L.T. van den Akker [c], Jutka Halberstadt [b]

[a] Department of Public and Occupational Health, Amsterdam UMC Location University of Amsterdam, Amsterdam, the Netherlands
[b] Department of Health Sciences, Vrije Universiteit Amsterdam, the Netherlands
[c] Department of Pediatrics, Erasmus MC University Medical Center, Rotterdam, the Netherlands
[d] Department of Public Health, Erasmus MC University Medical Center, Rotterdam, the Netherlands

ARTICLE INFO

Keywords:
Pediatric obesity
Integrated care
Healthcare professionals
Behavior change
Qualitative research

ABSTRACT

Objective: To explore the perspectives of healthcare professionals (HCPs) within an integrated care approach on the facilitators, barriers and needs in children with obesity and their parents in achieving a healthier lifestyle.
Methods: Semi-structured interviews were conducted with eighteen HCPs working within a Dutch integrated care approach. The interviews were analyzed by performing a thematic content analysis.
Results: Main facilitators identified by HCPs were support from parents and the social network. Main barriers were first and foremost family's lack of motivation, which was singled out as a precondition for starting the behavior change process. Other barriers were child's socio-emotional problems, parental personal problems, lack of parenting skills, parental lack of knowledge and skills regarding a healthier lifestyle, parental lack of problem awareness and HCP's negative attitude. To overcome these barriers, main needs that HCPs suggested were a tailored approach in healthcare and a supportive HCP.
Conclusion: The HCPs identified the breadth and complexity of underlying factors of childhood obesity, of which the family's motivation was pointed out as a critical factor to address.
Innovation: Understanding the patient's perspective is important for HCPs to provide the tailored care needed to address the complexity of childhood obesity.

1. Introduction

Over the past decades, the number of children with obesity has increased considerably worldwide [1]. In 2020, 2.6% of children aged 4 to 17 years had obesity in the Netherlands [2]. Childhood obesity can have serious short-term consequences, such as physical problems, psychosocial problems and a decreased quality of life, and long-term consequences, such as an increased risk of premature mortality and adult morbidity, and reduced educational, economic, and social chances [3-7].

The development and sustainment of childhood obesity are influenced by an interaction between different underlying individual factors, including biological and psychosocial factors, and environmental factors, including the physical, social and economic environment [8]. 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 [9]. These socio-economic health differences remain challenging in managing childhood obesity [10].

The complexity of childhood obesity requires integrated care to achieve and maintain behavioral change towards a healthier lifestyle [11-13]. An important prerequisite for successful integrated care is for it to be part of an integrated approach connecting 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 [14]. According to the 'National Model Integrated Care for childhood overweight and obesity' that was recently published in the Netherlands, effective obesity care goes beyond a healthy lifestyle, and includes attention for the underlying individual and environmental factors influencing obesity [13,15]. These individual and environmental factors can vary largely between

* Corresponding author at: Department of Public and Occupational Health, Amsterdam UMC Location University of Amsterdam, Amsterdam Public Health Institute, Meibergdreef 9, 1105 AZ Amsterdam, The Netherlands.
E-mail addresses: n.depooter@amsterdamumc.nl (N. de Pooter), e.vandeneynde@erasmusmc.nl (E. van den Eynde), h.raat@erasmusmc.nl (H. Raat), j.c.seidell@vu.nl (J.C. Seidell), e.l.t.vandenakker@erasmusmc.nl (E.L.T. van den Akker), j.halberstadt@vu.nl (J. Halberstadt).
[1] Joint first authorship.

http://dx.doi.org/10.1016/j.pecinn.2022.100074
Received 12 April 2022; Received in revised form 15 August 2022; Accepted 15 August 2022

families, leading to many different barriers and facilitators for behavioral change towards a healthier lifestyle [16-21].

Successful implementation of an integrated care approach partly depends on healthcare professionals (HCPs) identifying the barriers that children with obesity and their parents face in obesity treatment [22]. Communication and treatment outcomes could be affected when the perspective of the HCP on disease and treatment differs from that of the patient [23,24]. Previous research shows HCPs identify many difficulties children with obesity and their parents face in treatment within a multidisciplinary approach [22]. However, literature suggests that there are also incongruent views and attitudes around obesity management between HCPs and adult and adolescent patients, for example with regard to discussing the topic of weight [25,26,27]. In addition, successful integrated care goes beyond identifying the barriers within healthcare, and also requires HCPs to assess and acknowledge a wide range of factors outside of healthcare that could help or hinder families in achieving a healthier lifestyle [28,29]. By identifying these underlying factors together with the family, HCPs can tailor the treatment to the family's personal situation. This diagnostic pathway and perspective of HCPs working within an integrated care approach on these factors remains unclear in the literature. Therefore, the current study examines the perspective of HCPs within an integrated care approach on the facilitators, barriers and needs they observe in children with obesity and their parents in achieving a healthier lifestyle.

2. Methods

A qualitative study design with in-depth, face-to-face interviews was adopted to answer two research questions: (1) what is the perspective of HCPs on the facilitators, barriers and needs that children with obesity and their parents experience in achieving a healthier lifestyle, and (2) what facilitators and barriers do HCPs themselves experience in the support and care for children with obesity and their parents. This article describes the first research question, and Van den Eynde et al. (in preparation) describes the second research question. This distinction is made because these two questions comprise a different focus on childhood obesity care; the perspective of HCPs on the experience of the child and parent with achieving a healthier lifestyle and the experience of HCP with providing childhood obesity care. The same methods were used for both articles and are described according to the COREQ (Consolidated Criteria for Reporting Qualitative research) [30].

2.1. Participants

To include various perspectives, different HCPs were recruited from institutions involved in the integrated care for children with obesity in the Netherlands, including pediatricians, Youth Health Care (YHC) nurses and YHC physicians. These HCPs are typically involved in different steps of the integrated care process. The HCPs were recruited via phone or email and the recruitment was based on convenience sampling. Twenty HCPs 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.

To ensure inclusion of experienced HCPs, three inclusion criteria were identified prior to the recruitment: (1) pediatricians were included when they worked in an institution appointed as a center of expertise for childhood obesity by the Dutch association for pediatrics, (2) YHC nurses and YHC pediatricians were included when they worked in a municipality that contributed to the development and implementation of the Dutch 'National Model Integrated Care for childhood overweight and obesity', and (3) YHC nurses were included if they were appointed as coordinating professional for the local integrated care and support for childhood obesity. Within the national model, a coordinating professional is appointed to identify and monitor children with obesity, manage their care and organize interdisciplinary collaboration [15,28].

2.2. Data collection

Eighteen semi-structured 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. Each interview lasted approximately 60 minutes and took place in a quiet location chosen by the HCP, often the workplace, with no other people present besides the interviewer and the HCP. An interview guide was used during the interviews, including fourteen open-ended questions and some additional probing questions based on the socio-ecological model (see supplement A) [31].

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 transcripts to ensure accuracy according to the participating HCPs [32]. Many themes reoccurred in the interviews, but it was not possible to reach saturation on all themes because of the exploratory nature of the study and the broad questions that were asked on all levels of the socio-ecological model during the interviews [31].

2.3. Data analysis

A thematic content analysis was performed by using the program MAXQDA 2018. As the study is exploratory, the coding was done according to Grounded Theory [33]. To ensure triangulation of researchers, the data was coded and analyzed by two researchers (EvdE and NdP). The findings were discussed with a third researcher (JH).

To start the data analysis, the researchers read and summarized the interview transcripts to familiarize with the data. Next, inductive coding was done independently by the two researchers, and 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 changes in the subcodes were documented in a log [33]. Finally, seven important themes were determined to answer the research question. The participating HCPs did not provide feedback on the findings.

2.4. 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 (METC number 2018.234), and the general ethical standards of the department were followed. Before conducting the interviews, informed consent was signed by the HCP and consent for audio-recording was given once more verbally. To ensure the privacy of the participating HCPs, the interview transcripts were anonymized.

3. Results

In total, 18 HCPs participated in this study, working in eight different municipalities across the Netherlands. The characteristics of the participants have been described in Table 1.

The participating HCPs mentioned a large number of factors that in their perception help and hinder children with obesity and their parents in achieving a healthier lifestyle. In addition, they discussed what families need from HCPs and healthcare to overcome the barriers. A summary of the facilitators, barriers and needs can be found in Table 2.

3.1. Individual child factors (theme 1)

HCPs pointed out that socio-emotional problems of the child, such as stress, bullying and psychological problems can hinder children with

Table 1
Descriptives of the participating HCPs.

Participant characteristics	
Profession (n)	
Pediatrician	6
YHC nurse	11
YHC pediatrician	1
Gender (n)	
Female	17
Male	1
Mean age (years; range)	43.8; 29–60[a]
Mean working experience with children with obesity (years; range)	8.7; 1–18[b]
Age group of patients the participants generally work with (n)	
Solely children of primary school age	8
Solely children of secondary school age	1
Both age groups	9

[a] Unknown for one participant
[b] Unknown for five participants

obesity in achieving a healthier lifestyle. It is thought to be important for the HCP to address these problems.

3.2. Role of the parents (theme 2)

The HCPs indicated that many families want to change their lifestyle, but are not able to do so because parents have other, personal problems that are prioritized over a healthy lifestyle, such as psychosocial problems, financial issues, divorces, or housing problems. All of the HCPs emphasized the importance of support from parents in the behavior change process.

> *"It [achieving a healthier lifestyle] is not always their first priority due to many other issues or distractions, such as poverty, informal care for elderly, other worries, jobs, paying for housing…."*
>
> (YHC nurse 9)

3.3. Physical environment (theme 3)

HCPs also mentioned environmental challenges that could influence behavioral change. Policies at schools were explicitly mentioned as a barrier as programmes to create a healthy school environment are not always implemented correctly. For example by still providing unhealthy, cheaper options in school canteens, or by allowing unhealthy treats in some classes but not in others.

3.4. Socio economic environment (theme 4)

HCPs mentioned a low feeling of support in families caused by weight-related stigma in society. On the other hand, they mentioned the normalization of overweight in society and misperceptions of a healthy weight, especially in non-Dutch cultures. According to the HCPs, this could affect the family's problem awareness.

Table 2
Summary of facilitators, barriers and needs for every theme.

	Themes	Facilitators	Barriers	Needs
1	Individual child factors	Feeling good about themselves; knowledge and understanding about a healthy lifestyle	Socio-emotional problems; behavioral problems	HCPs providing more insight into the importance of a healthier lifestyle; HCPs addressing socio-emotional problems in healthcare
2	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 regarding a healthy lifestyle	Financial support; HCPs supporting parents in improving parenting skills regarding a healthy lifestyle when children are still young; HCPs involving fathers in the health care
3	Physical environment	Healthy school environment; safe environment to play outside; the healthy choice being the easy choice; appropriate and approachable sports facilities; information about a healthy lifestyle	Obesogenic environment; incorrect implementation of policies at schools and sports clubs; sports activities for children with obesity are not continuous	HCPs supporting patients in coping with temptations, particularly important with increasing freedom during puberty
4	Socioeconomic environment	A social environment that supports a healthy lifestyle	Low socioeconomic position; peer pressure to eat unhealthily; pressure of social media; extended family with different ideas about lifestyle; weight-related stigma in society; normalization of overweight	HCPs referring to buddy project to increase the feeling of support; HCPs referring to role-models that inspire to achieve a healthier lifestyle
5	Cultural environment		Traditional kitchen is not healthy; sporting is not common; misperceptions of a healthy weight; large role of food; not mastering the Dutch language	HCPs considering cultural norms and values in advice about a healthier lifestyle or parenting
6	Family's experience with healthcare	Taking small steps; feeling in control of the treatment	Unrealistic expectations of healthcare; having to tell their story multiple times; negative attitude of HCPs; seeing many different HCPs; vagueness of the healthcare system	Supportive HCP; tailored approach in healthcare; approachable healthcare; consistent communication from different HCPs
7	Family's motivation	Experiencing the burden of obesity; experiencing the benefits of a healthier lifestyle; confidence that change is possible	Experiences of failure in the past; unrealistic expectations of the behavior change process; having no request for help; parental lack of problem awareness	HCPs focusing on reducing the short-term physical and social consequences of obesity

3.5. Cultural environment (theme 5)

Cultural aspects of families were mainly mentioned as barriers and not as facilitators. The participating HCPs mainly talked about the Turkish, Moroccan and in one occasion the Polish culture. HCPs suggested it is important to consider cultural norms and values in their advice about a healthier lifestyle, but also about parenting skills as the way in which children are raised might be different in every culture.

"We definitely look from a Western perspective towards what a healthy lifestyle is supposed to be […], but that view does not always match with the way they [people with a non-Dutch cultural background] raise their children."

(Pediatrician 4)

3.6. Family's experience with healthcare (theme 6)

According to the HCPs, many children with obesity and their parents have had negative experiences with HCPs and feel resistance against YHC or the municipal health service. The HCPs mentioned several factors that could negatively influence the family's experience with healthcare, such as unrealistic expectations of the treatment, having to tell their story multiple times, and a negative attitude of HCPs. The HCPs emphasized the need for a supportive HCP who does not address patients in a judgmental way.

"They are just hurt people and children, so I think the attitude of the HCP is very important. I think it's very important that people feel supported."

(Pediatrician 1)

In addition, it is thought to be important to tailor the treatment to the family's situation. In some cases, HCPs think it is necessary for patients to gain more understanding about obesity and its consequences. In other cases, it might be better to stay away from the focus on weight and the scale as this can make patients feel attacked and pressured.

"I notice that the scale puts an enormous pressure on children. […] 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. They can enjoy things more. Then automatically that helps to take steps towards a healthier diet or other steps."

(YHC nurse 10)

In addition, HCPs mentioned that 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 to start. Some HCPs indicated that sometimes it might be necessary that the HCP takes a step back and waits for the family to be ready for it. Other HCPs indicated that this does not always work and that some patients need the HCP to take the lead.

"I also experienced that sometimes letting go makes them come back again."

(YHC nurse 13)

"Some find that a bit difficult. They would rather have an instruction with: do this and do that."

(YHC nurse 16)

3.7. Family's motivation (theme 7)

On the one hand, HCPs mentioned that many families want to change their lifestyle, but are not able to do so because of other problems. On the other hand, many HCPs mentioned that not every patient is 'motivated'. HCPs 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 YHC nurses emphasized the importance of motivation in order to achieve behavioral change.

"In the end they do want it, but they don't know how because there is so much going on."

(YHC nurse 8)

"Most children don't want it […] If they are not motivated, then there is really no point."

(YHC nurse 8)

Several factors were mentioned by the HCPs that could negatively influence the family's motivation. For example, many families have not formulated a request for help themselves, but are diagnosed at a regular check up with YHC professionals or are referred by other HCPs. According to the HCPs, this could affect their problem awareness. The HCPs indicated that 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 [to an appointment], but they don't see the problem, and they are not willing to do something about it."

(Pediatrician 4)

"It doesn't have anything to do with not being motivated, but with not always being able to see it [the overweight]"

(YHC nurse 8)

HCPs indicated that the problem awareness can be influenced by the child experiencing the short-term physical and social consequences of obesity, for example being teased, not being able to wear nice clothes or not being able to join peers in sports. HCPs say families might be more motivated when focusing on reducing these short-term consequences as not everybody understands or prioritizes the long-term medical consequences of obesity. In addition, it allows them to experience the benefits of the treatment.

"We might look at health and long-term [consequences], 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."

(YHC nurse 10)

4. Discussion and conclusion

4.1. Discussion

4.1.1. Facilitators and barriers

The participating HCPs mentioned a large number of facilitators and barriers they observe in children with obesity and their parents in achieving a healthier lifestyle. Main facilitators were support from parents and the social network. Main barriers were child's socio-emotional problems, parental personal problems, lack of parenting skills, parental lack of knowledge and skills regarding a healthy lifestyle, parental lack of problem awareness, HCP's negative attitude, and family's lack of motivation. Many of the facilitators and barriers in this study are consistent with previous research into the perceptions of children with obesity and their parents on what helps and hinders them in achieving a healthier lifestyle [16-21]. The HCPs identify the breadth and complexity of different personal and environmental challenges that families encounter in achieving a healthier lifestyle.

4.1.2. Needs

In addition to acknowledging these facilitators and barriers, it is useful to consider what children with obesity and their parents need from HCPs and healthcare to overcome the barriers. This could offer practical tools to support childhood obesity care.

The environmental barriers (physical, socioeconomic and cultural) are beyond the direct influence of the HCP within the context of the integrated care approach. However, these barriers can be taken into account during the care process. Participating HCPs suggested for example that patients need the HCP to support them in coping with temptations in the obesogenic physical environment or consider social and cultural norms and values in advice about a healthy lifestyle. In addition, HCPs can enhance the family's feeling of support, for example by referring patients to buddy projects. In previous studies, children with obesity and their parents themselves have also emphasized the importance of social interaction and support [18-20].

The individual factors of the child, the role of the parents and the family's experience with healthcare can be attempted to be influenced by the HCP. Participating HCPs suggested for example that patients need the HCP to address the child's socioemotional problems during the treatment and support parents in improving parenting skills regarding a healthier lifestyle. Parents in previous studies have also pointed out their need for skill building around parenting [16,20]. In addition, HCPs suggested they can contribute to creating a supportive healthcare environment for the child and its parents. For example by using thoughtful communication and adopting a tailored approach, which could be structured with the patient-centered model [34,35]. The importance of a supportive HCP with a positive attitude was also emphasized by children with obesity and their parents [18,36]. The way in which HCPs address the topic of weight appears to be particularly important for children with obesity, which was also mentioned by the HCPs in the current study [37]. However, HCPs have been documented as common sources of stigma towards people with obesity, which could undermine obesity treatment [36,37]. Few HCPs in the current study mentioned their own stigma, but some did mention the stigma of some other HCPs.

4.1.3. Motivation

One striking result in this study is while acknowledging a large number of individual and environmental barriers and facilitators, many HCPs singled out one prerequisite for starting the behavior change process: the family's motivation. When discussing the topic of motivation, HCPs mentioned to a limited extent the possible causes for the lack of motivation. This is consistent with previous research findings suggesting that HCPs find it hard to identify the drivers for lack of motivation in children with obesity and their parents [38].

In addition, the HCPs find it complicated to influence the family's motivation. Some HCPs indicated it is pointless to start the treatment process if the child and/or its parents are not motivated, and the HCP should wait until the family is ready for behavior change. This seems to reflect the Stages of Change Theory, which illustrates that the HCP can tailor motivational strategies to the patient's stage of change [39,40]. However, previous research shows HCPs can take a more passive role in treating obesity as they perceive a lack of patient motivation as an important barrier for successful treatment [22,41].

However, according to the Self-Determination Theory, motivation can be enhanced by the HCP by meeting three basic psychological needs of the patient: competence, relatedness and autonomy [42]. The need for competence can be supported by providing the patient with the required knowledge and skills for behavior change. The participating HCPs in the current study also mentioned the importance of children with obesity and their parents gaining more knowledge and understanding about obesity and a healthy lifestyle. However, previous research shows that HCPs themselves sometimes lack knowledge and/or skills relating to weight management [43]. HCPs can enhance the patient's sense of relatedness by being genuinely involved and supportive. This was also mentioned by the participating HCPs in the current study, although not in the context of influencing the family's motivation. The patient's autonomy can be honored by the HCP by assessing, connecting and finding common ground to what motivates the patient, instead of imposing their own perspectives or values on them [44,45]. On the one hand, the HCP in the current study seem autonomy-supportive by connecting with what is considered motivating for the child and its parents. This includes focusing on short-term physical and psychosocial benefits of the care process instead of the long-term medical consequences of childhood obesity. In previous research, children themselves also mentioned physical appearance and social considerations as motivating [46]. On the other hand, the fact that HCPs describe patients as 'unmotivated' might be caused by patients not being motivated for the HCP's course of action. From the interviews it remains unclear what the HCP wants the patient to be motivated for, as the participating HCPs did not specify whether they think their patients had a lack of motivation to participate in healthcare, change their lifestyle or lose weight in general. In addition, HCPs did not mention the underlying emotional aspects of the lack of motivation (e.g. what the patient thinks or feels), and merely described patients as not motivated by means of their behavior (e.g. having a certain body posture or not attending appointments). While it is important to pay attention to these visible symptoms of the lack of motivation, the Self-Determination Theory suggests understanding and validating the patient's viewpoint is crucial in supporting their autonomy [45].

The perceived lack of motivation might be a critical point where the perspective of the HCP differs from the perspective of the child with obesity and its parents, which could negatively affect communication and treatment outcomes [47]. Families could seem unmotivated to HCPs, but may be hindered by other problems or priorities, or have other motivations for change.

4.1.4. Strengths and limitations

There are some limitations to this study. First, the HCPs were recruited based on convenience sampling, which can be vulnerable to biases and influences beyond the control of the researcher [32]. However, the use of three inclusion criteria possibly decreased these limitations. Second, a qualitative research design using interviews includes a risk of socially desirable answers. Some topics could have been sensitive as they included personal factors of the participating HCPs, for example regarding the HCP's attitude. In addition, motivation could have been a sensitive topic as motivating patients might be considered as the HCP's responsibility. Third, female health care professionals were overrepresented in the study. However, women also dominate the current health workforce worldwide [48]. Strengths of this study include that the participating HCPs are specialized in childhood obesity and have substantial work experience with children with obesity. In addition, they worked in eight different municipalities spread across the Netherlands and consist of smaller and larger municipalities.

4.2. Innovation

Successful integrated care for childhood obesity requires HCPs to assess and acknowledge a wide range of factors within and outside of healthcare that could help or hinder families in achieving a healthier lifestyle [28,29]. To the best of our knowledge, this study is the first to explore the perspective of HCPs working within an integrated care approach on these factors. Our findings show the importance of HCPs understanding the patient's perspective to be able to tailor the treatment to the patient's needs, in particularly with regard to the patient's motivation. This is an important step in providing optimal support and can increase the chances of a successful treatment [47]. This study also shows the need for more research into the way in which HCPs can empower patients to set their own health priorities and agendas to enhance their autonomy and motivation according to the Self-Determination Theory. Empowerment in childhood obesity is currently under researched [44,49]. In addition, more research is required into the perspective of HCPs, children with obesity and their parents on the topic of motivation as it remains unclear in this study what they envision the aspect of motivation to entail.

4.3. Conclusion

This study has provided insight into the perspectives of HCPs within an integrated care approach regarding the facilitators, barriers and needs they observe in children with obesity and their parents in achieving a healthier lifestyle. The HCPs identify the breadth and complexity of different personal and environmental challenges families encounter in achieving a healthier lifestyle. By identifying these challenges in the diagnostic pathway, HCPs can tailor the obesity treatment to the family's personal situation. However, many HCPs singled out one important barrier for starting the healthcare and behavior change process: the family's lack of motivation. Pointing out motivation as a precondition for behavior change could result in not sufficiently providing the tailored care needed to address the complexity of the underlying factors of childhood obesity.

Funding

This work was supported by the Netherlands Cardiovascular Research Initiative: An initiative with support of the Dutch Heart Foundation and ZonMw (grant number CVON2016-07 LIKE). This project was also part of the Care for Obesity Project (VU University Amsterdam), which was funded by the Dutch Ministry of Health, Welfare and Sport (grant numbers 328544, 329657, 977473, 332401). The funders did not have any role in the study design, data collection and analysis, decision to publish or preparation of the manuscript.

Declaration of Competing Interest

All authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

We thank the healthcare professionals for participating in the study.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.pecinn.2022.100074.

References

[1] World Health Organization. Obesity and overweight. https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight; 2021. (Accessed 7 January 2022).
[2] Statistics Netherlands, National Institute for Public Health and Environment. Overgewicht. Cijfers en Context. Trends [Overweight. Numbers and Context. Trends]. https://www.volksgezondheidenzorg.info/onderwerp/overgewicht/cijfers-context/trends#node-trend-obesitas-kinderen-naar-leeftijd; 2020. (Accessed 7 January 2022).
[3] Buttitta M, Iliescu C, Rousseau A, Guerrien A. Quality of life in overweight and obese children and adolescents: a literature review. Qual Life Res. 2014;23:1117–39. https://doi.org/10.1007/s11136-013-0568-5.
[4] Daniels S. Complications of obesity in children and adolescents. Int J Obes (Lond). 2009; 33:S60–5. https://doi.org/10.1038/ijo.2009.20.
[5] Gilliland FD, Berhane K, Islam T, McConnell R, Gauderman WJ, Gilliland SS, et al. Obesity and the risk of newly diagnosed asthma in school-age children. Am J Epidemiol. 2003;158:406–15. https://doi.org/10.1093/aje/kwg175.
[6] Reilly JJ, Methven E, McDowell ZC, Hacking B, Alexander D, Stewart L, et al. Health consequences of obesity. Arch Dis Child. 2003;88:748–52. https://doi.org/10.1136/adc.88.9.748.
[7] Reilly JJ, Kelly J. Long-term impact of overweight and obesity in childhood and adolescence on morbidity and premature mortality in adulthood: systematic review. Int J Obes (Lond). 2011;35:891–8. https://doi.org/10.1038/ijo.2010.222.
[8] Whitehead M, Dahlgren G. Policies and strategies to promote social equity in health. Stockholm: Institute for Future Studies; 1991.
[9] Ruiz M, Goldblatt P, Morrison J, Porta D, Forastiere R, Hryhorczuk D, et al. Impact of low maternal education on early childhood overweight and obesity in Europe. Paediatr Perinat Epidemiol. 2016;30:274–84. https://doi.org/10.1111/ppe.12285.
[10] Beenackers MA, Nusselder WJ, Oude Groeniger J, Van Lenthe FJ. Het terugdringen van gezondheidsachterstanden: een systematisch overzicht van kansrijke en effectieve interventies [Reducing health inequalities in health: a systematic overview of promising and effective interventions]. Rotterdam, The Netherlands: Erasmus MC Universitair Medisch Centrum Rotterdam; 2015.
[11] Wilfley DE, Tibbs TL, Van Buren D, Reach KP, Walker MS, Epstein LH. Lifestyle interventions in the treatment of childhood overweight: a meta-analytic review of randomized controlled trials. Health Psychol. 2007;26:521. https://doi.org/10.1037/0278-6133.26.5.521.
[12] Yanovski JA, Yanovski SZ. Treatment of pediatric and adolescent obesity. JAMA. 2003; 289:1851–3. https://doi.org/10.1001/jama.289.14.1851.
[13] Seidell J, Halberstadt J, Noordam H, Niemer S. An integrated health care standard for the management and prevention of obesity in the Netherlands. Fam Pract. 2012;29: i153–6. https://doi.org/10.1093/fampra/cmr057.
[14] World Health Organization. Report of the commission on ending childhood obesity. World Health Organization; 2016.
[15] Sijben M, Van der Velde M, Van Mil E, Stroo J, Halberstadt J. National model integrated care for childhood overweight and obesity. Amsterdam: Care for Obesity; 2018.
[16] Cason-Wilkerson R, Goldberg S, Albright K, Allison M, Haemer M. Factors influencing healthy lifestyle changes: a qualitative look at low-income families engaged in treatment for overweight children. Child Obes. 2015;11:170–6. https://doi.org/10.1089/chi.2014.0147.
[17] Grootens-Wiegers P, van den Eynde E, Halberstadt J, Seidell JC, Dedding C. The 'Stages towards Completion Model': what helps and hinders children with overweight or obesity and their parents to be guided towards, adhere to and complete a group lifestyle intervention. Int J Qual Stud Health Well-being. 2020;15:1735093. https://doi.org/10.1080/17482631.2020.1735093.
[18] Kelleher E, Davoren MP, Harrington JM, Shiely F, Perry IJ, McHugh SM. Barriers and facilitators to initial and continued attendance at community-based lifestyle programmes among families of overweight and obese children: a systematic review. Obes Rev. 2017;18:183–94. https://doi.org/10.1111/obr.12478.
[19] Perry RA, Daniels LA, Bell L, Magarey AM. Facilitators and barriers to the achievement of healthy lifestyle goals: qualitative findings from Australian parents enrolled in the PEACH child weight management program. J Nutr Educ Behav. 2017;49:43–52. https://doi.org/10.1016/j.jneb.2016.08.018.
[20] Schalkwijk A, Bot S, De Vries L, Westerman M, Nijpels G, Elders P. Perspectives of obese children and their parents on lifestyle behavior change: a qualitative study. Int J Behav Nutr Phys Act. 2015;12:1–8. https://doi.org/10.1186/s12966-015-0263-8.
[21] Smith KL, Straker LM, McManus A, Fenner AA. Barriers and enablers for participation in healthy lifestyle programs by adolescents who are overweight: a qualitative study of the opinions of adolescents, their parents and community stakeholders. BMC Pediatr. 2014; 14:1–14. https://doi.org/10.1186/1471-2431-14-53.
[22] Schalkwijk A, Nijpels G, Bot S, Elders P. Health care providers' perceived barriers to and need for the implementation of a national integrated health care standard on childhood obesity in the Netherlands-a mixed methods approach. BMC Health Serv Res. 2016;16: 1–10. https://doi.org/10.1186/s12913-016-1324-7.
[23] Clark M. Healthcare professionals' versus patients' perspectives on diabetes. J Diabetes Nurs. 2005;9:87–92.
[24] Ogden J, Bandara I, Cohen H, Farmer D, Hardie J, Minas H, et al. General practitioners' and patients' models of obesity: whose problem is it? Patient Educ Couns. 2001;44: 227–33. https://doi.org/10.1016/S0738-3991(00)00192-0.
[25] McHale CT, Laidlaw AH, Cecil JE. Primary care patient and practitioner views of weight and weight-related discussion: a mixed methods study. BMJ Open. 2020;10:e034023. https://doi.org/10.1136/bmjopen-2019-034023.
[26] Hughes CA, Ahern AL, Kasetty H, McGowan BM, Parretti HM, Vincent A, et al. Changing the narrative around obesity in the UK: a survey of people with obesity and healthcare professionals from the ACTION-IO study. BMJ Open. 2021;11:e045616. https://doi.org/10.1136/bmjopen-2020-045616.
[27] Kebbe M, Perez A, Buchholz A, Scott SD, McHugh TF, Richard C, et al. Adolescents' involvement in decision-making for pediatric weight management: A multi-centre, qualitative study on perspectives of adolescents and health care providers. Patient Educ Couns. 2019;102:1194–202. https://doi.org/10.1016/j.pec.2019.01.017.
[28] Koetsier L, van Mil M, Eilander M, van den Eynde E, Baan CA, Seidell JC, et al. Conducting a psychosocial and lifestyle assessment as part of an integrated care approach for childhood obesity: experiences, needs and wishes of Dutch healthcare professionals. BMC Health Serv Res. 2021;21:1–11. https://doi.org/10.1186/s12913-021-06635-6.
[29] Seymour J, Barnes JL, Schumacher J, Vollmer RL. A qualitative exploration of weight bias and quality of health care among health care professionals using hypothetical patient scenarios. Inquiry. 2018;55. https://doi.org/10.1177/0046958018774171. 0046958018774171.
[30] Tong A, Sainbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. International J Qual Health Care. 2007;19:349–57. https://doi.org/10.1093/intqhc/mzm042.
[31] Bronfenbrenner U. The ecology of human development. Cambridge: MA Harvard University Press; 1979.
[32] Green J, Thorogood N. Qualitative methods for health research. London: SAGE; 2018.
[33] Boeije H. Analysis in qualitative research. London: SAGE; 2009.
[34] Hudon C, Fortin M, Haggerty J, Loignon C, Lambert M, Poitras M-E. Patient-centred care in chronic disease management: a thematic analysis of the literature in family medicine. Patient Educ Couns. 2012;88:170–6. https://doi.org/10.1016/j.pec.2012.01.009.
[35] Stewart M, Brown JB, Weston W, McWhinney IR, McWilliam CL, Freeman T. Patient-centered medicine: transforming the clinical method. 3rd ed. CRC Press; 2013.
[36] Puhl RM, Latner JD. Stigma, obesity, and the health of the nation's children. Psychol Bull. 2007;133:557. https://doi.org/10.1037/0033-2909.133.4.557.
[37] Puhl RM, Peterson JL, Luedicke J. Parental perceptions of weight terminology that providers use with youth. Pediatrics. 2011;128:e786–93. https://doi.org/10.1542/peds.2010-3841.

[38] Lutz AG. Patients' autonomy as a negotiated order: an ethnographic perspective on the clinical management of childhood obesity. Sociol Health Illn. 2019;41:772–88. https://doi.org/10.1111/1467-9566.12863.
[39] Prochaska J, DiClemente C. Towards a comprehensive model of change. In: Miller WR, Heather N, editors. Treating addictive behaviours: processes of change. New York: Pergamon; 1986.
[40] Miller WR, Rollnick S. Motivational interviewing. Preparing people for change. 2nd ed. New York: The Guilford Press; 2002.
[41] Sonntag U, Brink A, Renneberg B, Braun V, Heintze C. GP's attitudes, objectives and barriers in counselling for obesity – a qualitative study. Eur J Gen Pract. 2012;18:9–14. https://doi.org/10.3109/13814788.2011.627424.
[42] Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. Am Psychol. 2000;55:68. https://doi.org/10.1037/0003-066X.55.1.68.
[43] Laidlaw A, Napier C, Neville F, Collinson A, Cecil JE. Talking about weight talk: primary care practitioner knowledge, attitudes and practice. J Commun Healthc. 2019;12:145–53. https://doi.org/10.1080/17538068.2019.1646061.
[44] Woo S, Park KH. Motivating children and adolescents in obesity treatment. J Obes Metab Syndr. 2020;29:260. https://doi.org/10.7570/jomes20026.
[45] Ryan RM, Deci EL. A self-determination theory approach to psychotherapy: The motivational basis for effective change. Can Psychol. 2008;49:186. https://doi.org/10.1037/a0012753.
[46] Silva DFO, Sena-Evangelista KCM, Lyra CO, Pedrosa LFC, Arrais RF, Lima SVC. Motivations for weight loss in adolescents with overweight and obesity: a systematic review. BMC Pediatr. 2018;18:1–8. https://doi.org/10.1186/s12887-018-1333-2.
[47] Lachal J, Orri M, Speranza M, Falissard B, Lefevre H, Qualigramh MR, et al. Qualitative studies among obese children and adolescents: a systematic review of the literature. Obes Rev. 2013;14:351–68. https://doi.org/10.1111/obr.12010.
[48] World Health Organization. Delivered by women, led by men: a gender and equity analysis of the global health and social workforce. WHO Human Resources for Health Observer Series No. 24; 2019.
[49] Earle R, Littlewood R, Nalatu S, Walker J. Empowerment approaches in childhood weight management: a systematic review. Child Obes. 2022;18:2–30. https://doi.org/10.1089/chi.2021.0049.