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Dutch general practitioners’ perspectives on addressing obesity: A qualitative study

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Abstract

Background: Early diagnosis and treatment of obesity in primary care may help to tackle the obesity pandemic. Nonetheless general practitioners (GPs) frequently fail to address obesity and demonstrate limited adherence to guidelines.

Aim: To explore Dutch GPs’ perspectives on addressing obesity regarding three target behaviors: discussing weight, diagnosing, and referring patients with obesity.

Design and setting: A qualitative focus group study with Dutch GPs.

Methods: Six focus groups were conducted with a purposive sample of 21 GPs. Thematic analysis was performed using deductive coding according to the Theoretical Domains Framework (TDF).

Results: For discussing weight, main barriers identified were a presented complaint unrelated to obesity (environmental context/resources), concerns about a negative response from the patient (beliefs about consequences), worries about obesity being a sensitive vulnerable subject to discuss (emotions). A long-term trustworthy relationship (social influences) facilitated discussing weight. For diagnosing patients with obesity, the main barriers were related to resources, e.g., lack of (appropriate) measuring equipment and time (environmental context/resources). For referring patients with obesity, main barriers were no referral options
nearby (environmental context/resources), and doubts about the positive effects of the referral on weight change (beliefs about consequences).

**Conclusion:** Different barriers for discussing weight, diagnosing, and referring patients with obesity were identified, underscoring the importance for tailored interventions to these specific behaviors. Improving knowledge and skills of GPs seems insufficient as this study showed that particular attention should be paid to establishing long-term relationships, addressing GPs beliefs about consequences and a supportive environment with sufficient time and resources.

**Key words:** overweight, obesity, qualitative research, general practitioners, general practice, primary healthcare

**How this fits in**

General practitioners frequently fail to address obesity and demonstrate limited adherence to guidelines. Aim of this qualitative study was to explore Dutch GPs’ perspectives on addressing obesity regarding discussing weight, diagnosing, and referring patients with obesity. Investment in long-term trustworthy doctor-patient relationships (discussing weight), optimizing resources and time management in the consultation room (diagnosing patients
with obesity) and improving accessible referral options and beliefs about outcome
expectancies (referring patient with obesity), might facilitate addressing obesity in primary
care. Future intervention management for addressing obesity should be tailored to each
different behavior for change (discussing, diagnosing, and referring) instead of addressing
obesity in general.
Introduction

The prevalence of patients with obesity is increasing worldwide (1, 2). In the Netherlands, currently almost half of the population is overweight or obese (2). Patients with obesity visit their general practitioner (GP) more often (3, 4) and have an increased risk for morbidity and mortality (5, 6). This is not only hazardous for patients, but also a burden for primary care, and by extension for the entire healthcare system (7). In primary care it causes a higher workload for the GP and more prescribed medication in this population (8). Early identification and explicit diagnosis and targeted treatment approaches for obesity in primary care may help to counteract these negative effects.

Nonetheless, in daily practice general practitioners (GPs) often fail to address obesity and experience difficulties to adhere to the practice guidelines (9, 10). This is unfortunate, since GPs are in a crucial position in the healthcare system to signal, diagnose and treat patients with obesity. The national guideline for obesity of the Dutch College of General Practitioners (NHG) describes when diagnostics, treatment and referral are indicated (11). Understanding why there is limited adherence to these guidelines regarding obesity care requires insight into the determinants of the GPs behavior regarding addressing obesity.
A successful approach to addressing obesity in primary care requires the GP to perform different behaviors: discussing weight, diagnosing, and referring patients with obesity for treatment of their obesity. Different barriers may exist for each of these behaviors. In order to understand determinants of behavior and to facilitate behavior change, the behavior for change should therefore be specified and clearly selected (12). Previous research on perspectives of GPs for addressing obesity and adherence to obesity guidelines did not specify the assessed behaviors upfront (13-15). In the present study we address this limitation by focusing on three specific behaviors separately using the Theoretical Domains Framework (TDF) as a framework specifically designed to understand determinants of healthcare professional behavior.

The TDF consists of fourteen theory-based domains which represent varying determinants for behavior change e.g., knowledge, social influences, and beliefs about consequences (16, 17). This evidence-based approach was developed to assess implementation problems and health professional behaviors as a basis for intervention development (17). Each domain of the TDF relates to a component in the overarching “Capability, Opportunity, Motivation and Behavior” (COM-B) model. This model identifies three key factors that need to be present for any behavior to occur: capability, opportunity, and motivation.
To our knowledge only one study used the TDF to explore barriers and facilitators of healthcare professionals in addressing obesity (18). However, this study focused only on discussing weight, whereas effective management of obesity in primary care also requires essential behaviors such as diagnosing and referring patients with obesity. With the present study we thus aim to extend on these findings by applying the TDF to explore the barriers and facilitators of GPs for three specific target behaviors that are crucial to adhere to the guidelines; 1. discussing weight 2. diagnosing patients with obesity and 3. referring patients with obesity.
Method

Design and setting

This study is a qualitative study using the outcome of tightly guided focus groups discussions. Focus groups were chosen as it has been shown that focus groups allow for participant interaction and group dynamics which may provide a broader range/scope of perspectives and information (19). Focus groups were organized with GPs working in primary care in the Netherlands. The study protocol was approved by the Medical Research Ethics Committee of the Leiden University Medical Center (LUMC) (N21.120).

Participant selection and recruitment

We used purposive sampling to recruit a heterogenous sample of GPs in terms of age, gender, working experience, GP practice setting and patient populations. We recruited GPs from the extramural LUMC academic network (ELAN), an online platform for GPs (HAweb), a local network of locums and from the personal network of the researchers. Potential participants received written information regarding study purposes and provided written informed consent prior to participation. Focus groups were organized with three to five participants, and new
groups were added until data saturation was reached (i.e., until no new themes were brought forward).

Data collection

In each focus group three specific target behaviors were discussed: discussing weight, diagnosing, and referring patients with obesity. Discussing weight refers to raising the topic weight during consultation. Diagnosing patients with obesity refers to measuring height, weight and preferably also waist circumference, followed by structured registration of the measurements in the electronic health record (EHR). Referring patients with obesity for treatment included various options e.g., a dietician, a lifestyle coach, a combined lifestyle intervention (CLI: combining healthy diet, physical activity, sleep and stress management), the general practice nurse and bariatric surgery. A semi-structured topic guide for each target behavior was developed based on the fourteen domains of the TDF (supplementary table 1).

For each target behavior, participants were asked questions related to all fourteen domains of the TDF to gain insight into the barriers and facilitators.

Prior to the start of each target behavior, we showed participants one of the three vignettes of an encounter with a specific patient with obesity as an example to prompt GPs with a variety
of real-life practice situations. The vignettes included, for discussing weight, a patient with obesity with a reason of encounter unrelated to obesity, for diagnosing patients with obesity, a patient with obesity asking for help to lose weight and for referring patients with obesity, a patient with obesity with cardiovascular risk factors (supplementary file 1). The focus groups lasted two hours and were all moderated by an experienced moderator (PP) assisted by two observers (WH, LB) who made fieldnotes. The first and second focus group took place in the Leiden University Medical Centre. The next four focus groups were conducted online as COVID-19 restrictions hindered coming together in person. Data collection took place between September 2021 and February 2022. The focus groups were audio recorded, and transcribed verbatim by two researchers (WH, LB).

Data analysis

The transcripts were analyzed using a thematic analysis approach using Atlas ti. 22. The fourteen theoretical domains of the refined TDF were used for deductive coding (16, 20). Barriers and facilitators were identified within each domain. If content did not fit in one of the prespecified TDF domains an additional (inductive) code was added. To structure the result section of the report, the COM-B system was used (12). Two researchers (WH, LB)
independently coded the focus group discussion to increase reliability. To resolve any inconsistencies and coding problems and to refine generated themes, the research team (including a behavioral scientist (MA)) frequently discussed allocation of the codes and themes to TDF domains until agreement was reached.
Results

Sample characteristics

We reached data saturation after six focus groups with three to five GPs (n=21). Table 1 presents the characteristics of the study population. The participants had a mean age of 49 years (range 33 – 66 years) and the majority were women (76.2%). For each target behavior, the main barriers and facilitators structured into the three COM-B components with the related TDF domain in brackets are described below. Figure 1 summarizes these barriers and facilitators. Supplementary table 2 summarizes all reported barriers and facilitators for each domain of the TDF.

Discussing weight

Capability

In the domain of capability, knowledge was the only barrier mentioned related to capability: several GPs indicated that they had insufficient knowledge regarding guidelines for addressing obesity. Several facilitators were mentioned related to capability: some GPs mentioned feeling competent in discussing weight. They emphasized they possessed the skills to discuss weight by fact-focused communication and by using the correct vocabulary.
Another facilitator was a documented Body Mass Index (BMI) measurement in the
EHR as some participants indicated this functioned as a reminder for discussing weight at
follow-up (memory, attention and decision processes).

**Opportunity**

An important barrier for discussing weight mentioned in all focus groups, was the difficulty
to discuss weight when the presented complaint was unrelated to obesity (environmental
context and resources). When complaints were related to obesity (e.g., joint complaints,
cardiovascular risk factors, infertility, diabetes) a conversation about weight was said to be
easier to start: ‘If the complaint they come up with is unrelated to obesity, I find it to be
almost inappropriate to start a conversation about obesity (…) I really must have a clear
relationship with obesity, for example cardiometabolic diseases, fatigue or anything else I can
comment on…”(GP 16)”

Within this domain (environmental context and resources), lack of time was mentioned as a
barrier to discuss weight, particularly when the GP was unexperienced, was unfamiliar with
the patient or worked as a locum. Social influences were mentioned both as an important
barrier and facilitator for discussing weight. Specifically, the absence of a preexisting good
doctor-patient relationship was mentioned as a barrier especially by locums. On the other hand, having a good doctor-patient relationship facilitated discussing weight. This good relationship could arise from a positive atmosphere during consultation, from building a relationship of trust, from experience or from being familiar with the patient.

**Motivation**

*Beliefs about consequences* was another important barrier for discussing weight and was mentioned in all focus groups. GPs were hesitant to discuss weight due to fear of negative responses which might harm their doctor-patient relationship. However, other GPs mentioned never having negative responses from patients, which facilitated discussing weight: *'People never respond, “mind your own business”, but I must say I know these people for a long time (...) they know my intentions.’"* (GP 10).

Albeit less frequently discussed, GPs were unconvinced about their influence on weight change or the problem obesity in general by discussing weight (*beliefs about consequences*). As a facilitator, a few GPs pointed out that they felt they could influence obesity by creating awareness, promoting lifestyle changes or preventing co-morbidities. Anticipated emotions were also a mentioned barrier for discussing weight: GPs expressed feeling reluctant to
discuss weight, as they consider it a sensitive and vulnerable subject (emotions):’… people may be embarrassed about it or find it a sensitive subject which makes it difficult for me to bring it up.’”(GP18)”.

Finally, a new theme that did not fit the existing TDF framework emerged and was therefore inductively added as a new theme in our analysis: characteristics of the patient.

Characteristics of the patient (e.g., age) were said to function either as a barrier or a facilitator for discussing weight. Almost all GPs had examples of characteristics (age, sex, BMI, motivation, comorbidities and socio-economic status of the patient), they felt easier or more difficult to discuss weight with. Some characteristics were mentioned as facilitator by some but as a barrier by others. GPs who mentioned a specific characteristic explained why it was easier or more difficult to discuss weight with a patient with this characteristic. For example:

‘I am more reluctant with men because they do not like me nagging’”(GP 2)”.

‘…the younger the patient is, the more likely you are to achieve health benefits … ’”(GP 8)”.

‘Healthy food is expensive, for example if a patient has financial problems, it is not that easy to eat healthily.

For this reason, I will not discuss weight.’”(GP 2)”.

**Diagnosing patients with obesity**
**Capability**

Domains related to capability were not frequently mentioned for diagnosing patients with obesity. As a barrier, some did indicate a lack of skill in measuring waist circumference. As facilitator, GPs knew how to enter an ICPC-coding and document the measurements in the EHR (*skills)*.

**Opportunity**

Almost all barriers mentioned in diagnosing patients with obesity were in the domain of *environmental context and resources*. Specifically, lack of (appropriate) materials in consultation rooms (e.g., scales and measuring tape) was mentioned as a barrier, especially by some locum GPs without their own consultation room. Lack of time was also sometimes mentioned.

**Motivation**

The most important facilitator for diagnosing patients with obesity, mentioned in all focus groups was that GPs measure and document obesity since it helps themselves in future consultations. For example, when discussing weight at follow-up, assessing cardiovascular
disease at follow-up, writing a referral, prescribing medication, it was useful to have an adequate weight in the EHR. Another reason to document obesity is to facilitate easier collaboration with colleagues (beliefs about consequences): ‘It is good to document weight because it also affects other conditions. I sometimes see patients of a colleague and have to interpret laboratory results. To be able to do this, you need to know if someone is overweight, just as when prescribing. So, it is good to document.’’(GP 21)’. ‘...if I document obesity then I can later bring up the subject more easily.’’(GP18)’.

Another barrier is that GPs mentioned that documenting obesity is not their priority in daily practice, but as a facilitator they consider it is important to document it in the EHR (goals).

**Referring patients with obesity**

**Capability**

For capability, mainly topics belonging to the domain of knowledge were discussed. As a barrier, GPs mentioned a lack of knowledge about referral options, or where the referral options are offered in their municipality, particularly for lifestyle coaches and CLIs. Some GPs had also insufficient knowledge about criteria for certain referral options. Most GPs were able to find a dietician (knowledge).
**Opportunity**

The first most important barrier mentioned for referring patients with obesity involved the domain *environmental context and resources*. Specifically, lack of availability of accessible referral options nearby was mentioned as a barrier: "*We do not use the combined lifestyle intervention because there are no healthcare providers who offer this in our city…*" (GP 11).

In contrast, having accessible referral options nearby (e.g., through personal contact with the healthcare providers or offered treatment on-site) was mentioned as a facilitator by some GPs. Also, healthcare coverage for treatment of obesity was mentioned as a facilitator (*environmental context and resources*). Lastly, a less frequently mentioned barrier was that GPs failed to refer since obesity has become socially accepted (*social influences*).

**Motivation**

The other most important barrier for referring patients with obesity concerned *beliefs about consequences*. In all focus groups, GPs doubted the impact the referral could have on obesity or weight change. This doubt had several reasons: firstly, GPs mentioned that they had little confidence in the healthcare providers they could refer to, especially dieticians. They
mentioned disappointing results and patient dropouts due to lack of motivation: "I have not always been enthusiastic about the dietician in our village (...) although they are not doing too bad, it does not always yield a lot in terms of losing weight." (GP 6)"

"...that dietician from whom I received the third letter from, stating that someone dropped out. At that moment I think I should not do this anymore." (GP 11)

Secondly, confidence in the effectiveness of the CLI differed between GPs: some were convinced of its effects while others mentioned a lack of evidence, long-term results and lack of willpower of the patient: "...I am glad I have got the option of a combined lifestyle intervention, as this allows me to refer the patient, but that does not mean I am sure about its effects yet." (GP 8)

Thirdly, some GPs were hesitant to refer for bariatric surgery, as they had encountered the disadvantages after surgery and they doubted the long-term effectiveness. Lastly, GPs doubted the impact their referral could have due to the obesogenic food environment with unhealthy cheap foods being omnipresent (beliefs about consequences). Within this domain (beliefs about consequences) a facilitator was that GPs found it easier to refer patients with obesity for reasons such as preventing co-morbidities, achieving health benefits or maintaining a stable weight.
GPs were in doubt about their professional role in obesity: they were all sure they should create awareness of obesity and should discuss weight and the problems associated with it, but uncertain about their exact role in the follow-up. Some GPs were eager to treat patients with obesity themselves, while other GPs felt they would rather refer. Many GPs also acknowledged a role for the community and government e.g., tax on sugar and regulations regarding obesity at school (social/professional role and identity): ‘…our society is so sickening, when you walk into a supermarket, you first pass the cookies, chocolate, and sweet drinks. It is not something for just the GP to address, it is also a societal task.’” (GP 14).

Finally, a new theme for referring patients with obesity was once again the characteristics of the patient (inductively added). For this target behavior, this was mainly mentioned as a barrier: In all focus groups, GPs found it difficult to refer their patient if they noticed a lack of motivation during consultation. In addition to this barrier, a low socio-economic status (e.g., patient is unable to afford the treatment or healthy food) was also mentioned as a barrier.
Discussion

Summary

This focus group study explored GPs’ barriers and facilitators in discussing weight, diagnosing, and referring patients with obesity related to the TDF. For discussing weight main barriers identified were related to environmental context and resources, beliefs about consequences, and emotions: GPs failed to discuss weight when the presenting complaint was unrelated to obesity, when they were concerned about a negative response from the patient, and when they worried about obesity being a sensitive vulnerable subject. For diagnosing patients with obesity, the most important barrier was related to environmental context and resources: e.g., lack of (appropriate) measuring equipment and time. For referring patients with obesity, the main barriers were related to beliefs about consequences, knowledge and environmental context and resources: GPs doubted about the positive effects of the referral on weight change, had insufficient knowledge of referral options and had lack of accessible referral options nearby. In sum, different barriers and facilitators exist for discussing weight, diagnosing, and referring patients with obesity, which indicates the necessity to tailor future interventions to each specific behavior. Moreover, our findings suggest that, unlike frequently suggested, limited knowledge and skills are not major barriers to any of the behaviors.
Interventions should rather pay particular attention to barriers such as addressing beliefs about consequences and creating a supportive environment with sufficient time and resources.

**Strengths and limitations**

Strengths of this study include the systematic way in which the problem was approached and defined. First, in line with step two (select the target behavior) and step three (specific the target behavior) of the Behavior Change Wheel (12), three specific target behaviors were specified and addressed in the focus groups. Secondly, we used the TDF, which is the most widely used, integrated theoretical framework for understanding healthcare professional behavior, and which allows for identifying a broad range of facilitators and barriers in a structured manner. Results revealed that for the specific target behaviors, the barriers and facilitators were on different domains within the TDF, which implies that different behavior change techniques will be required to support GPs for the different behaviors.

Some limitations should be taken into account. First, focus groups could yield more socially acceptable answers. Secondly, the participating GPs might have had a special interest in obesity and may have been more motivated to optimize the care for patient with obesity.
However, it is to be noted that participants were asked about their special interests in general practice and only two GPs expressed having a special interest in obesity care (table 1). Lastly, the risk of bias resulting from the use of the vignettes in the focus groups must be mentioned. We aimed to start the broad discussions about each target behavior with a realistic and representative vignette to enliven their memories of real-life practice situations, but the perspectives of the GPs may have been influenced by the examples we used which were different for the three behaviors.

Comparison with existing literature

For discussing weight, this study confirmed the difficulty to discuss weight when the presented complaint is unrelated to obesity (18, 21-24). Additionally, in our study many GPs agreed that their knowledge of obesity, its risks and the skill how to start a conversation were sufficient, this was in contrast with two previous studies which mentioned the uncertainties on the level of knowledge about obesity being a medical condition (18, 25). Concerning diagnosing patients with obesity, it has been shown that GPs often fail to document obesity in the EHR (26, 27), especially for patients with obesity who are younger and without co-morbidities (27, 28). To our knowledge, the reasons behind this under recording have not
been investigated before. Regarding referring patients with obesity, GPs were in doubt about
the effectiveness of the referrals on weight changes. This is underpinned by studies showing
only modest weight reduction of dietary interventions (29-31). Also, the long-term
effectiveness of the CLI is still uncertain and has not been proven yet (32-36). In addition,
GPs admitted their limited knowledge of CLIs, as confirmed by Van der Heijden et al. (37).

Some challenges were experienced when mapping the data onto the TDF. Therefore, we
added a new code in our analysis: characteristics of the patient (e.g., age, sex, socio-economic
status). Almost all GPs had examples of a type of patient they felt easier or more difficult to
discuss weight with. This is in line with a study showing differences in addressing obesity in
patients with specific characteristics in clinical practice (38). They found an association
between addressing obesity and the female sex, socio-economic deprivation, non-white
race/ethnicity, comorbidities and the heaviest BMI group. These findings and our findings
indicated that addressing obesity is a complex problem and requires a patient-centered
approach that involves personalized care for each specific patient characteristic.

*Implications for practice*
To address these different barriers and facilitators within each target behavior, it is important to acknowledge the need for tailored interventions management for each specific behavior.

For discussing weight, establishing strategies for discussing sensitive topics and training in communication techniques might facilitate the GP to discuss weight even when the complaints are unrelated to obesity or when the GP worried about a negative response from the patient. Also, long-term trustworthy doctor-patient relationships and patient-provider continuity are important to this end. This is a challenge since the number of locum GPs is increasing over the past years in the Netherlands; this aspect needs specific attention in primary care (39-41).

For diagnosing patients with obesity, it is important to acknowledge the lack of environmental resources and time during consultation. Routinely measuring and weighing patients with obesity and registration of the results by the practice nurse prior to entering the consultation room might be helpful. Also, supplying scales and measuring tapes in each consultation room should be considered.

For referring patients with obesity, awareness of available referral options, easy access to nearby options and confidence in the expected outcomes are essential. Studies showed that awareness and knowledge among GPs regarding content and effectiveness of healthcare
innovations, such as CLIs, are crucial for developing a positive attitude towards these innovations (37, 42-44). Therefore, providing education and involvement of the GP could contribute to increased referrals to CLIs. A positive development is that healthcare insurances have started to reimburse CLIs in January 2019 in the Netherlands (45). GPs in our study agreed that healthcare coverage for such treatments facilitates referral.

Finally, since GPs mentioned that they felt the problem of addressing obesity goes beyond the scope of the general practitioner’s profession, it is of utmost importance that obesity is also addressed by politicians at a societal level (13, 46, 47).

**Conclusion**

In conclusion, based on our results investment in long-term trustworthy doctor-patient relationships (discussing weight), optimizing resources and time management in the consultation room (diagnosing patients with obesity), improving accessible referral options, and addressing beliefs about outcome expectancies (referring patient with obesity) are likely to facilitate addressing obesity in primary care. Future intervention management should be tailored to each different behavior for change (discussing weight, diagnosing, and referring patients with obesity) rather than on addressing obesity in general. Additionally, since most
barriers and facilitators concerned *beliefs about consequences* and *environmental context and resources* these should be taken into account when developing future interventions. Adjusting guidelines and improving knowledge among GPs is part of the solution, but by itself insufficient to address obesity in primary care.
Funding

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Data availability

All data relevant to the study are included in the article or uploaded as online supplemental information.

Acknowledgements

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Ethical approval

The Medical Ethical Committee of the Leiden University Medical Center approved the design of the study (N21.120).

Competing interests

The authors declare no competing interests.
References

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Figure 1 Main barriers and facilitators regarding the three target behaviors structured into the Theoretical Domains Framework (TDF) and Capability Opportunity Motivation Behavior (COM-B) model.
Table 1 Sample characteristics reported by the participants (n=21)

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<tr>
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### Specific areas of interest

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