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A qualitative study of GPs' views towards obesity: are they fighting or giving up?



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ABSTRACT

Objectives: Several studies indicate that general practitioners (GPs) are not taking the issue of obesity as seriously as they should. Therefore, the aim of this study was to understand GPs' views about obesity and obese people and how these professionals perceive their role in the treatment of this disease.

Study design: Qualitative study using semi-structured interviews.

Methods: Sixteen semi-structured interviews were conducted with Portuguese GPs. Data were analyzed according to thematic analysis procedures.

Results: GPs are negative about their own role in obesity treatment. Although they believe it is part of their job to advise obese patients on the health risks of obesity, the majority of doctors think they are not making any difference in getting their patients to make long term lifestyle changes. GPs hold negative attitudes towards these patients blaming them for being unmotivated and non-compliant and are also pessimistic about their ability to lose weight. Doctors are facing a dilemma in their practices: they want to play an active role but, due to a set of negative beliefs and perceived barriers, they are playing a relatively passive role, feeling defeated and unmotivated, which is reflected in a decrease of efforts and a willing to give up on most of the cases.

Conclusions: This issue should be taken in to account during physicians' education since doctors should be aware of how their own beliefs and attitudes influence their behaviour and practices, compromising, therefore, the adherence to and the success in obesity treatment. They seem to need more precise guidelines and better tools for screening and management of obesity, more referral options, and improved coordination with other specialities.

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Introduction

With the worldwide increase of obesity, health care professionals are being called to play an active role in the prevention and treatment of this disease. By working in primary care settings, General Practitioners (GPs) are in a key position to take action and engage a preventive approach since it's one of their tasks and especially because



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they have been considered the first port of call for help for many obese patients.¹ According to Tan et al.² obese patients seem to be more willing to ask for counselling to lose weight from GPs than dieticians or other specialities. Other studies also indicate that obese patients feel that GPs have a role in weight management, consider the advices on healthy eating and physical activity useful and refer to be more likely to follow weight-loss recommendations after being advised by their physicians.^{2–4} This presents a challenge for GPs, especially in terms of responsibility, but also creates an excellent opportunity to positively influence patient's health behaviour.

However, physicians may not be taking advantage this opportunity. According to Loureiro and Nayga,⁴ there remains considerable resistance on the part of many physicians to become actively involved with overweight and obese patients and some of them don't even consider obesity a medical issue.⁵ In addition, a systematic review conducted by Teixeira et al.6 indicates that GPs have insufficient knowledge and training regarding obesity counselling and they also seem to hold negative beliefs and attitudes towards these patients who are described as lazy, unattractive, unmotivated, emotionally unstable and with no self-control, being therefore unable to adhere to treatment programs.⁷⁻¹¹ In addition, Sonntag et al.¹² indicate that GPs are playing a relatively passive role in obesity management. They emphasize the active role of patients in achieving the necessary lifestyle changes, perceiving themselves only as supervisors of behaviour changes. Physicians also identify several barriers as detrimental to the treatment such as inadequate time for counselling, lack of training and competence, communication problems in addressing patients weight, lack of patient motivation and compliance, and lack of resources for referral.^{9,12–15}

For many authors,^{6,16,17} this general attitude of GPs towards weight management and obese patients as well as these discrepancies in treatment responsibility are some of the reasons behind the failure of several interventions regarding this disease. Then, it becomes important to explore the beliefs and attitudes of GPs towards obesity and how it could influence their practices, especially when there are studies indicating that obese patients don't feel enough support from their GPs on weight management, leading to a decrease in confidence in their doctor and, therefore, making obese patients less willing to talk about weight issues.^{18–20}

In Portugal, 40% of the population are overweight and 15% are obese. Among adults (18–64 years old), 66.6% of males are overweight (46.7%) or obese (19.9%), while 38.1% of females are overweight and 19.8% are obese (total of 57.9%).²¹ As in other European countries, Portuguese GPs are the gatekeepers to secondary specialist care and are responsible for much of the management of chronic diseases. However, there are no specific guidelines for GPs on weight loss treatment and nothing is known about what they are doing concerning obesity and what are the results of their interventions. It becomes therefore important to understand how Portuguese GPs are facing this phenomenon. The aim of this qualitative interview study is to understand GPs' views about obesity and obese people and how

these professionals perceive their role in the treatment of this disease.

Method

A thematic analysis was used to collect and analyse the data in accordance with the guidelines developed by Braun & Clarke.²² This qualitative method used for 'identifying, analysing and reporting patterns (themes) within data', provided a deeper understanding of physicians' views and meanings regarding obesity management by going beyond the data achieved through quantitative surveys. The authors are also responding to some critics that had identified the lack of qualitative studies as a limitation in the comprehension of GPs' views about obesity.^{5,23,24}

The research project was approved by the local university research ethics committee.

Participants and data collection

GPs working within urban and rural primary health care centres in the north of Portugal were purposively sampled. Physicians were invited to participate by telephone and/or after the approval of the heads of the primary health care centres. After the first contacts, a snowball sampling was also taken to get access to other institutions and professionals. To be included in the sample, GPs must have had a medicine speciality degree in general practice, work in primary health care centres and have, at least, two years of experience.

Semi-structured face-to-face interviews were conducted between January 2011 and October 2012. Interviews took place at GPs' workplace, each lasted 30-55 min, with the exception of two short interviews, which were 20 min each due to GPs' pressing commitments. Written consent to participate in the study and to audio-record the interview was obtained. After a review of the literature, the research team developed a provisional interview guide with nine open questions about general knowledge about obesity, feelings towards the obese and opinions about treatments and their efficacy, as shown in Box 1. Probing questions were also used to clarify information and gain additional data. Data collection and analysis were conducted concurrently. Recruitment of participants discontinued on saturation, i.e. when no new insights were arising from the data. Data saturation was reached at 10 interviews but to increase study quality and trustworthiness six extra interviews were conducted. Participants also completed a short survey in the beginning of each interview eliciting demographic data.

Data analysis

All interviews were transcribed verbatim, anonymized and analyzed using QSR NVivo 10 software. An inductive thematic analysis was conducted²² by coding the data in each interview transcript and determining themes relating to the codes. These codes identified features of the data that researchers considered pertinent to the research question. Therefore, data were read several times to allow team's closeness and familiarization with the data. A constant

Box 1 Interview schedule.

- 1. What do you think about obesity and how do you describe this phenomenon? (causes, consequences, cultural beliefs about obesity and its implications to the encounter and adherence)
- 2. Do you know what the prevalence of obesity is in Portugal?
- 3. How do you describe your experience with obese people? (experiences of success and failures; effectiveness, difficulties, barriers)
- 4. How do you describe your obese patients? (lifestyle, motivation to change, adherence)
- 5. How do you feel about managing these patients? (how GPs cope with failures; what they mean for them; implications for practice)
- 6. How and when do you approach weight problems with your patients? (is obesity an issue to the patient or not? how GPs communicate with patients and what they talk with them)
- 7. What do you think the patient expect from you? (beliefs about the patients expectations, how they handle it, role perceived in the management and treatment of obesity)
- 8. What is your opinion about obesity treatments? (effectiveness, long term outcomes, referrals and barriers to referrals, communication with other professionals)
- 9. What is your opinion about the Portuguese training education in relation to obesity?

comparative method was adopted throughout. One of the authors developed an initial coding frame which was discussed afterwards with the others members of the research team until a final consensus was reached. The coding frame developed was then used as a guide to systematically code the other interview transcripts. In line with the constant comparative approach, as analysis of transcripts progressed, the coding frame was revised in response to new data. All initial codes relevant to the research question were combined and incorporated into different themes. Emergent themes, subthemes and potential relationships between them were charted to better visualize the data and consider the generation of more themes and links between them. Finally, when coherent, clear and consistent patterns emerged, themes were named, defined and interpreted. Reflexive diaries were written during this process and frequent meetings and discussions between the authors ensured thorough coding and agreement in the development of framework themes and subthemes.

Results

Participants' characteristics

The total sample consisted of 16 GPs (seven men and nine women), achieving the saturation data. The mean age was 51.27 (9.98) years old (range: 32–57 years). All physicians were residents at a primary health care centre and had a mean of 25.66 (10.5) years of practice (range: 5–33 years). Two participants, besides the speciality in general practice also had a degree in Occupational Health. The participants average BMI was 25.55 kg/m² (3.04) (range: 20.83–30.48 kg/m²), putting them into the overweight cluster. In Portugal, primary care centres are divided by geographical areas and only the central institutions have other services such as nutritional or psychological support. In this study, only six GPs could count with these allied services in their work-places and only one referred to be working together as a team with other professionals regarding obesity issues.

Themes identified from the interviews

Analysis of the interviews yielded three main themes: 1) obesity as a public health concern; 2) obese characteristics vs treatment demands, and 3) GPs' sense of defeat vs need to treat, which will be described further. Direct quotations from interview transcripts highlighting particular aspects of these themes can be found through the text. Each one is identified by interview number.

Theme 1: obesity as a public health concern

GPs have a high awareness of obesity as a public health and medically relevant issue. Although, few know the actual numbers of obesity in Portugal, they all have the perception that it is affecting almost half the adult population and they notice a big recent increase of overweight and obesity among children which seems to represent a new challenge for GPs: they not only have to deal with children but also with their parents that sometimes react in a negative way to GPs call of attention and advices. As it is mentioned by GP8:

... all gets worst especially when you have parents that are also obese! They are always presenting excuses, they don't understand the need to change and if they don't control their own weight, how will they control their children's weight?

Physicians view obesity largely as a behavioural problem, with physical inactivity and unhealthy diets as the most important causes. They also argue that there are some cultural aspects and beliefs in Portuguese society playing an important and negative role in the Portuguese obesity scenario. On the one hand, there is the importance given to food: it is perceived not only as a necessity for living but mainly as a way of expressing feelings and also as a reflection of history and tradition, existing, therefore, an emotional relationship with food, mainly associated with pleasure.

... I used to say that food is a cultural expression of our values: we love food, we love to eat and we don't feel guilty about it (...) Now

things are changing but being fat used to be a motive to be proud of. It means that you not only are eating well and in a desirable portion but also that you are a strong and healthy person ... (GP5)

We have good gastronomy, with history and tradition, and we are proud of that. (...) Food is present in almost every important event in our lives. If you are sad or worried about someone, you eat or offer a cake; if you are happy, you do the same! What do we do when we want to celebrate something? We eat! And we eat a lot! (...) We chose restaurants based on the taste and amount of food they serve (...)We like to eat and for most of us, eating well, is eating a lot! (GP11)

On the other hand, there is a general belief in Portuguese society that obesity is not a health problem As GP3 and GP14 expressed:

For many people, obesity is not yet a disease. Being fat, it's a sign of strength and energy, especially in rural areas. Being fat doesn't cause you diabetes or hypertension. It's caused due to biological or genetic problems. No matter how much information you give them, they simply don't associate one thing to another and don't recognize the importance of losing weight. Weight is only a problem when you are a young adult and single (laughs) ... special among women (laughs). Otherwise, you don't need to worry about being overweight ... what's the problem, anyway? (GP3)

Obesity doesn't hurt ... That's the problem. They complain about back pain, difficulties in walking, fatigue, joint pain, but they don't recognize it as a co-morbidity of obesity. For them, the problem is the pain, is living with diabetes, is the hypertension ... things that are clearly diagnosed and solved with medication! You don't treat obesity with medication. You don't run exams to diagnose obesity. Therefore, is not a disease. (...) Everybody knows that being fat is not good, but mainly because it damages your image. What they don't know is that it is a disease and possible the reason behind those complains. (GP14)

GPs are then worried about the burden of obesity in terms of physical, psychological and social consequences for obese people and in terms of health costs, having doubts about the response of health services to obese patients and criticizing the government for the lack of efficient health policies.

Theme 2: obese characteristics vs treatment demands

GPs seem to hold negative attitudes towards obese patients. They describe them mainly as unmotivated and noncompliant. According to physicians, obese patients present a passive coping, have unrealistic weight loss expectations, perceive lifestyle changes as a sacrifice, being, therefore, unwilling to make time for diet or exercise and lacking compliance. They used to present psychological problems such as anxiety, depression and lacking self-control, using food as a coping strategy to deal with emotional impairment. Physicians consider that obese patients want that doctors hold control and responsibility over the treatment, don't recognize the nature, consequences and gravity of the problem and deny their condition, lacking commitment. ... they expect the miracle! They hope for pills that could make them skinny with any kind of efforts or change! You take the pills at night and, in the morning you wake up skinny and beautiful... (GP8)

... they know they are fat, but they aren't willing to renounce anything because they don't see it nor feel it as a problem ... The majority doesn't care, doesn't want to know. They don't think of it as a disease. They know it isn't nice, but they don't change because it brings suffering! All they want is some weight loss pills! It's much easier than do something to change! One the other hand, there are patients that are not satisfied with their weight, apparently they seem willing and motivated to change, but it's all fake! In the next consultation, they have exactly the same weight and didn't follow any of my advices. (GP14)

These characteristics are opposed to what GPs report as being essential to treatment success: they emphasize the active role of patients in achieving necessary lifestyle changes to lose weight, as well as motivation, willing to change, commitment, discipline and sacrifice.

"Without willingness and motivation you don't change your lifestyle ... Without effort and sacrifice you don't get it ... An obese patient needs to be committed with himself, with his goals, with his doctor and with his family to change ... (GP12)

Theme 3: GPs' sense of defeat vs need to treat

Doctors are feeling defeated and powerless, engaging a relatively passive role in the treatment of obesity. Because of the constant lack of motivation, commitment and compliance of obese patients, they are having repeated experiences of failure, perceiving themselves not only as unsuccessful in achieving weight loss in their patients but also believing in patient's inability to lose weight, expecting patient nonadherence. They describe the management and treatment of obesity as a difficult thing to do, finding it frustrating and professionally unrewarding, feeling therefore defeated and willing to give up.

Treating obesity it's really difficult... sometimes I think it's a waste of time. We try and try and try, but in the next consultation they have the exactly same weight or sometimes they weight even more!(...) It's difficult to handle this. I feel all I can do is repeat the same message over and over again and maybe someday they will get it. (GP3)

It's very difficult to change their habits (...) They have them for a long period of time, they are reluctant to change and you still had to deal with all the cultural and social beliefs and myths about food. (...) I feel completely frustrated when I'm not able to change their attitudes and behaviours. It's really difficult to handle this ... we want to see differences, we want to see changes, we try but they don't get it ... they don't understand the need and importance of losing weight ... We can't do more! (GP11)

I feel really sad and frustrated (...) We stop expecting positive outcomes and, at same point, I start to feel inefficient and

doubting about my performance (...). Honestly, sometimes it's like we are talking to walls and we are only doing it[prevention counselling]as a discharge of consciousness. (GP4)

However, GPs feel committed to offer weight management to obese patients, since they perceive it as part of their responsibility making patients aware of their obesity and its consequences and looking for an adequate treatment. As GP7 expressed:

Our job is to keep trying to motivate them and help them to make the changes. It's part of our functions and our workload, as general practitioners, to engage a preventive approach, advising patients to lose weight or do referrals when they constantly fail in achieving our goals or the severity of obesity is seriously compromising the health and well-being of the patient. (...) Measuring weight is now a mandatory procedure for all of us in all consultations. We do it on a daily basis for every patient, regardless he or she is overweight or not. (...) (GP7)

Nonetheless, they seem to be more willing to provide weight loss counselling to patients with higher BMIs and to those with comorbid conditions, feeling reluctant to manage weight when there are no comorbidities or when the patients are overweight as opposed to obese. Physicians express substantial ambivalence regarding how to approach the issue of weight management: some GPs bring up the topic of overweight and obesity spontaneously in consultations; others address the topic in specific situations such as when discussing related comorbidities such as diabetes or cardiovascular disorders. They also view weight loss medications as less important than lifestyle changes such as healthy eating behaviours and exercise as it is mentioned by GP8:

Most of them [obese patients] come to the consultation expecting to get a prescription with the miracle pills. I frequently need to emphasize that there are no safe medication to lose weight. Drugs will not work and are not useful unless they change their lifestyles. If they want to lose weight, they need to start to eat in a healthy manner and exercise regularly. (...) Some of them still persist or try to negotiate saying "I already lost some weight. It's just a reward or a stimulus to keep me motivated". But it's not a negotiable thing for me, especially when they are doing the first steps into change. (GP8)

They also demonstrate some scepticism regarding the efficacy of available treatments for obesity and referral to dietician or act in collaboration with other specialities was not a common practice.

Bariatric surgery is an option but only for those morbidly obese. And even in these cases I have some doubts ... It is a fact that, at least during the first six to twelve months, they lose big amounts of weight. Of course it has its benefits but is not a balance thing ... I think even the person is not well prepared to deal with the process ... The problem is that after that period of time, in my opinion, they start to regain the weight lost. It's like the problems of self-control and the bad habits they used to have are only paused for a while. (GP1) As you know there's a lack of resources in our institutions ... Dieticians, when available, have an enormous waiting list so we need to establish some criteria to do referrals. When overweight or obesity is not too severe, I usually do the counselling myself. I only do referrals in cases of severe obesity and when the comorbidities are compromising the patients' health. These cases require time, attention and effort which is something impossible to manage in a brief consultation. But my perception is that, even with dietician help, the outcomes are very poor. (...) Dietetic and psychological support are two fundamental resources in the treatment of obesity but it's complicate to cooperate or plan other activities when you don't have that resources or when you are too submerse with your demands and workload and when they have their own goals and agenda that clearly are too different from ours. (GP5)

Discussion

The aim of this study is to understand GPs' views about obesity and obese patients, how these professionals perceive their role in the treatment of this disease and how it influences their practices. This qualitative analysis reveal that GPs are facing a set of dilemmas, the main one being an internal conflict between their perceived responsibilities and duties as physicians in obesity treatment and a feeling of disengagement derived from negative outcomes and beliefs. Although provide information, advise patients on the health risks of obesity and enhance motivation are perceived as at the core of physicians' duties, they are negative about their own role in obesity treatment. The majority of doctors think they are not making any difference in getting their patients to make long term changes in lifestyle. They blame obese patients for being unmotivated and non-compliant, holding, therefore, negative attitudes towards these patients that seem to influence GPs' beliefs and practices. In cognitive terms, they believe they must play an active role in the treatment of obesity (they need to treat). However, in behaviour terms, the lack of obese compliance and positive outcomes, the negative attitudes towards obese, the perception of low self-efficacy and the feelings of frustration as well as a set of barriers and social beliefs perceived as out of physicians control, are leading them to play a relatively passive role in the treatment of this disease (sense of defeat).

Similarly to the findings of Sonntag et al.,¹² GPs emphasized the active role of patients in achieving necessary lifestyle changes to lose weight. However, contrary to these same results, physicians don't perceive themselves only as supervisors in the change process: they believe they can play an active role in obesity treatment since, contrarily to the results of Epstein and Ogden,⁵ they consider obesity management as part of their workload. Nevertheless, as reported in other studies,^{3,9,12–15} the poor intervention outcomes and the lack of patients motivation and compliance, perceived as barriers beyond physicians control, are creating doubts about doctors' efficacy and developing feelings of frustration, powerlessness, dissatisfaction and a sense of defeat that is making GPs to perceive the treatment as a waste of time, desiring to give up on most of the cases of obesity. However, the perception of this disease as part of their domain of action is not letting them to do that.

This disappointment is reflected in the way GPs perceive obese patients. As confirmed by Teixeira et al.,⁶ the participants also hold negative beliefs and attitudes towards these patients. Besides their willing to help obese patients, it is clear, as Ogden et al.²⁵ refer, that physicians' beliefs reflect a 'victim blaming approach', since obese patients are viewed as responsible for both the cause and solution of their problem. In addition, the repeated experiences of failure reinforce the perception of obese patients as unmotivated, non-compliant, unwilling to make lifestyle changes and therefore, unable to lose weight. Another reason behind these negative attitudes might be physicians' unrealistic expectations in relation to weight loss outcomes. This leads to attributions of failure and feelings of frustration even if some significant lifestyle changes are achieved or the current weight was, at least, maintained.^{26,27} According to Visser et al.,²⁸ this belief in obese patients incapacity to adhere derives not only from the lack of positive results and the feelings of frustration, but also from the rise in the number of overweight patients, the experience that patients often regain weight and the perception that changing behaviours is something that takes effort and is very difficult to achieve. Hayden et al.²⁹ add that blaming obese for the failures works as an ego-protective strategy to GPs. It is easier to blame patients rather than recognize that there is a lack of adequate knowledge concerning obesity treatment. Previous studies^{12,15} found that GPs with a high level of obesity-specific knowledge are more likely to believe in the success of their therapy and have less negative attitudes towards obese patients. The lack of knowledge is not the only reason justifying the perception of the treatment as a difficult thing to do but also the GPs' educational background. As Foster et al.¹⁰ indicate, medical training places a great emphasis on the biological basis of disease rather than on the principles of behavioural sciences. As such, physicians may not feel fully equipped to address behavioural issues. This could also explain why GPs give more attention to those with bigger BMI or with co-morbidities than to those who are overweight. They rely on a curative rather than a preventive approach,^{10,13,28} missing an important opportunity to counsel individuals and prevent morbidity and mortality. This is particularly relevant especially when there are studies confirming the positive effect that physicians advice have on obese patients motivation to change and to lose weight.^{2–4} Nonetheless, in this sample, the cultural belief related to the lack of recognition of obesity as a health problem might be influencing physicians practices, leading them to undervalue moderately overweight patients. Thus, they don't seem to give it the same emphasis they do when the patient already presents co-morbidities or a higher BMI, managing overweigh as a problem requiring little medical attention.

Rather than the cultural context, the lack of knowledge or the education model, other reasons may explain these differences in delivery care as well as the perception of the treatment as a difficult thing to do. According to Leverence et al.,³⁰ the workload and competing demands of primary care physicians to deliver a range of preventive services, including obesity counselling and the limitation of time of the encounter is leading GPs to undertake a selective approach to obesity screening and counselling. They need to balance their time in the most appropriate and effective way, prioritizing not only obesity management and prevention but also other medical and preventive services. This scenario raises challenges for practice: on the one hand, the implementation of guidelines for obesity treatment might be lead to a second plan due to inadequacy in relation to doctors experiences in primary care³⁰; on the other hand, it endorses the development of new evidence-based models of approaching and managing obesity in the context of primary care (such as the Counterweight Project³¹) and promotes the revision and discussion of health policies and organization of the health system.

This issue of guideline inadequacy seems to represent a bigger problem in Portugal since Australian and American guidelines have been mostly used. This could be another reason contributing to the perceptions of failure and inefficiency of GPs, adding one more factor to the dichotomy between fight (need to treat) or give up (sense of defeat) on obesity treatment.

The perception of infra-structured barriers also seems to be contributing to this dilemma. The insufficient number of dieticians working in Portuguese health institutions in addition to the lack of resources to support weight loss, such as psychologists or exercise experts, may explain the GPs reluctance to make referrals. However, due to treatment demands and the increase workload of GPs, they should be more willing to adopt a team-oriented care model. A review of Tsai et al.³² indicated that intervention outcomes concerning weight loss are improved when counselling is done in collaboration rather than delivery by GPs alone. This team work could also facilitate some communication problems that physicians seem to be facing in approaching the issue of obesity and also improve the advice surrounding nutrition and exercise.

These findings underlines the meaningfulness of further education for primary health care providers who deal with overweight and obese patients. In addition, previous studies indicate that trainee doctors also hold negative beliefs and attitudes towards obese patients, have low perceptions of self-efficacy concerning treatment and are not convinced of the success of the intervention outcomes.³³ Patient-centred communication, motivational interviewing, problem solving and action planning should be available in residency programmes, as well as in continuous medical education.³⁴

Strengths and limitations of the study

By using a qualitative approach , this study gave response to some critics concerning the high number of researches with a quantitative design and the lack of more meaningful results concerning the beliefs, attitudes and practices of GPs.^{5,23,24} This enables us to explore in depth the physicians' views about obesity, what it means to their experience and practice and how they perceive themselves as agents of change. Team work to code, develop and refine the coding frame as well as the use of a constant comparative method enhanced the 'trustworthiness' of the findings³⁵ but failed to provide multiple perspectives. Other panel of experts or the participants themselves were not involved in the discussion of the adequacy of the themes or subthemes and the linkages between

them. This sample was also limited in geographical scope to the north of Portugal, and essentially limited to one medical speciality, so the generalisability of these findings requires verification in larger and more diverse samples. On the other hand, it was possible to achieve data saturation, with a high degree of consistency of themes. The use of a sound qualitative framework with detailed description of the procedures of collecting and analysing data also ensures rigour to the study and allows further decisions concerning transferability.³⁵ The reflexive diaries kept by the main researcher (who was also the interviewer) heightened self-awareness concerning subjectivity and possible bias during data collection and analysis.

Conclusion

In sum, GPs are facing an internal conflict between their perceived responsibilities and duties as physicians and a feeling of disengagement, reflected in a willing to give up on obesity treatment. They believe it is part of their job to engage a preventive approach but they hold a pessimist view about obesity and obese patients that seems to be affecting their practices in a negative way. They are playing a relatively passive role, feeling defeated and unmotivated to act, which is reflected in a decrease of efforts and in a set of negative beliefs and attitudes concerning treatment of obese patients. If patients perceive this negativity they may also response in a negative way to physicians negative attitudes, creating a vicious circle that may reinforce the doctors' beliefs and be detrimental to intervention and GPs-patients relationship. If GPs are supposed to be at the forefront of the obesity management, they should be more aware of how their beliefs influence their practices and be encouraged to change them when necessary. This issue should be taken into account during general practitioners' education and training. They seem to need more knowledge and training, precise guidelines and better tools for screening and management of obesity, more referral options, and improved coordination with other specialities. Also, discomfort with the subject of obesity may be partially ameliorated with training. Structural, social and environmental changes such as the involvement of the community, the improvement of health policies and revision of the organization and demands imposed to GPs in primary care should also take place. More research in this area is needed concerning differences between other groups of health care professionals, patients views about their doctors, possible relationships between doctors own weight, sex and age/years of experience and their practices and a more systematic approach to barriers to intervention as a way to determine how best to facilitate GPs' contribution in addressing the obesity pandemic.

Author statements

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Ethical approval

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Competing interests

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