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Exploring obstetricians', midwives' and general practitioners' approach to weight management in pregnant women with a BMI ≥25 kg/m^2: a qualitative study

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ABSTRACT

Objective The aim of this study was to explore healthcare professionals' (HCPs) beliefs and attitudes towards weight management for pregnant women with a body mass index (BMI) ≥25 kg/m^2.

Design Qualitative study.

Setting A public antenatal clinic in a large academic maternity hospital in Cork, Ireland, and general practice clinics in the same region.

Participants HCPs such as hospital-based midwives and consultant obstetricians and general practitioners (GPs).

Method Semistructured interviews were conducted with a purposive sample of hospital-based HCPs and a sample of GPs working in the same region. Interviews were recorded, transcribed and thematically analysed using NVivo software.

Results Seventeen HCPs were interviewed (hospital based=10; GPs=7). Four themes identified the complexity of weight management in pregnancy and the challenges HCPs faced when trying to balance the medical and psychosocial needs of the women. HCPs acknowledged weight as a sensitive conversation topic, leading to a '*softly-softly approach*' to weight management. HCPs tried to strike a balance between being woman centred and empathetic and medicalising the conversation. HCPs described '*doing what you can with what you have*' and *shifting the focus to managing obstetric complications*. Furthermore, there were *unclear roles and responsibilities* in terms of weight management.

Conclusion HCPs need to have standardised approaches and evidence-based guidelines that support the consistent monitoring and management of weight during pregnancy.

Strengths and limitations of this study

- The inductive approach used in this qualitative study revealed the nuances and tensions involved in the management of overweight and obese pregnant women.
- The recruitment healthcare professionals (HCPs) across settings, including hospital-based HCPs and general practitioners with a range of experiences, is a further strength of this study.
- Most of the HCPs were recruited from a limited geographical area, and their perceptions and approach to weight management for overweight and obese pregnant women may not reflect those of HCPs working elsewhere.
- Variation in interview length occurred due to constraints and demands on participants' time.

INTRODUCTION

The prevalence of overweight and obesity during pregnancy is increasing.[1] Although some weight gain is to be expected during pregnancy, many women appear at their first antenatal appointment with a body mass index (BMI) ≥25 kg/m^2 representing a significant and increasing problem faced by healthcare professionals (HCPs) in obstetric practices.[1 2] Recent studies, in Ireland, reported that between 19% and 25% of women were categorised as overweight or obese in the first trimester[3] or at their first antenatal visit.[4] Furthermore, obesity in women was most widespread in high-income countries with a prevalence of 25% in the UK and 34% in the USA.[5] In Europe, the prevalence of overweight and obesity among pregnant women ranged between 33% and 50%[6]

Overweight is defined as BMI ≥25 kg/m^2, and obesity is defined as a BMI≥30 kg/m^2, which is assessed at the first antenatal consultation.[7] Gestational weight gain (GWG) is the total weight gained during pregnancy, with the largest weight gains generally occurring in the second and third trimester.[7 8] The Institute of Medicine (IOM) recommends different GWG for each BMI category.[7 9] These guidelines are individualised to prepregnancy BMI and are based on evidence of weight gain patterns in pregnancy and on health outcomes for mother

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and baby. A recent review that compared national GWG guidelines and energy intake recommendations found that 31% of countries were adopting these GWG guidelines.[10] Furthermore, after two different searches of available guidelines, the authors of the review found no GWG guidelines or recommendations available for Ireland.[10]

Problems associated with obesity during pregnancy include an increased risk of hypertensive disorders, higher rates of caesarean section and preterm delivery.[11] Moreover, excessive GWG in pregnancy increases the risk of developing gestational diabetes mellitus (GDM) and is a strong risk factor of long-term obesity.[12–14] Obesity also presents a greater risk of perinatal complication such as macrosomia.[15] Recent literature reviews have identified diet and lifestyle interventions as a means of reducing the risk of GWG, GDM and postnatal weight retention.[16–18] However, due to the poor quality of these studies and heterogeneity in the intervention designs, the results should be interpreted with caution and uncertainty persists around their effectiveness.[19]

While the delivery of antenatal care is different in many countries, a number of HCPs, including hospital-based HCPs (such as midwives and obstetricians) and general practitioners (GPs) provide care throughout pregnancy.[20] In Ireland, antenatal care is shared between hospital-based HCPs and GPs.[21] Pregnancy has been identified as a 'teachable moment' where woman's health motivations could be harnessed for long-term behaviour change and wider public health benefits beyond pregnancy, given women's vital role in supporting healthy lifestyles in the wider family unit.[22] The regular interactions between HCPs and women during pregnancy provide opportunities to support women to achieve positive lifestyle changes, particularly in terms of weight management.[23 24] While these HCPs have been identified as vital contributors to the antenatal services, in Ireland, little is known about the ways in which such professionals engage with overweight and obese pregnant women. HCPs have key opportunities to influence lifestyle and weight management in this shared care arena that are not currently fully availed of.[25 26]

Few studies in Ireland focus on the approach taken by HCPs regarding antenatal lifestyle advice and weight management.[27–29] Little is known about the use of guidelines in clinical practice and whether HCPs address the needs of overweight and obese pregnant women. A survey among obstetrics and trainee doctors in the USA found little knowledge of the revised IOM guidelines for appropriate GWG.[30] Over half of those surveyed were not aware of the new guidelines and less than 10% selected the correct BMI ranges or the correct GWG ranges. Previous qualitative studies have highlighted a number of barriers to weight management for HCPs including communication difficulties between HCPs and patient,[31] lack of confidence and training to provide weight advice[32] and a lack of resources within antenatal care.[33] Understanding the ways in which HCPs currently manage maternal obesity in an Irish context is necessary to inform the development of antenatal lifestyle interventions. Therefore, the aim of this study was to explore HCPs beliefs and attitudes towards weight management and their approach to working with overweight and obese pregnant women at a large academic maternity hospital in Cork, Ireland, and primary care settings in the same region.

METHODS

Study design

A qualitative study was conducted to understand HCPs experiences of weight management for both overweight and obese pregnant women.

Sampling and recruitment

Hospital-based HCPs were purposively sampled and identified at Grand Rounds from a public antenatal clinic in a large academic maternity hospital, Cork University Maternity Hospital (CUMH), Ireland. CUMH is a large academic maternity hospital in the south of Ireland where approximately 6657 new obstetrics patients entered in 2015.[34] Hospital-based HCPs included midwives and consultant obstetricians who provide care for women either during pregnancy, labour and birth or in the postnatal period. GPs in the Cork-Kerry region were identified using a GP list provided by the Department of General Practice, University College Cork, which included GP names and contact details. GPs were purposively sample based on gender and location of practice (urban/rural). GPs were recruited from single or group practices serving both public and private patients. HCPs were eligible if they were engaged in clinical practice during the time of the study and regularly consulted with pregnant women with a BMI ≥25 kg/m^2. HCPs were provided with an invitation letter and study information sheet and were informed that CF was conducting this research as part of her PhD work. Follow-up phone calls were made to determine if they were interested in participating.

Interview process

Face-to-face semistructured interviews were carried out by a single trained qualitative researcher (CF) at the hospital antenatal clinic or in the primary care setting between January and July 2016. Written informed consent was obtained from all HCPs prior to the interview. The topic guide was developed based on previous literature.[11 18 35 36] Key areas for discussion included addressing weight, lifestyle advice and resources and supports available (online supplementary file 1). The topic guide and interview process were piloted by interviewing two HCPs (a midwife working in Australia and a nurse no longer involved in clinical practice). Following this, refinements were made to the prompts used to ensure the interview was designed to capture HCPs experiences. Pilot interviews were not included in the final sample.

Patient and public involvement

As the interviews focused on HCPs beliefs and attitudes, patients were not directly involved in the design or administration of this research.

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Table 1 Profile characteristics of HCPs (n=17)

	Male	Female
Occupation		
Midwife*	–	4
Senior house officer	–	1
Consultant obstetrician†	2	3
General practitioners	3	4
Location		
Cork	4	12
Kerry	1	–

*Midwife working in diabetic clinic (n=1); labour ward (n=1); outpatient department (n=2).
†Obstetrician's working in obstetrics with subspecialist interests such as maternal medicine, high-risk pregnancies, fetal medicine and complicated pregnancies (n=4) and gynaecology (n=1).
HCP, healthcare professionals.

Data analysis

Interviews were audio-recorded and transcribed verbatim. NVivo software was used to facilitate data analysis. Thematic analysis as described by Braun and Clarke[37] was used to analyse the data.[37] An inductive approach was used where transcripts were read and open-coded. These codes were grouped according to HCPs beliefs and attitudes, their approach to weight management and the reasons for this approach. Codes and categories were discussed, and subthemes were synthesised and organised to develop broader themes (CF and SMH). The data were analysed independently by one researcher (CF) with a subset of the transcripts dual coded (CF and SMH). To ensure the consistency of the findings, an audit trail was kept for transparency in the analysis. Hospital-based HCPs and GPs were reported as HCPs when similar views and attitudes were expressed. Differences between hospital-based HCPs and GPs were also recorded. The Consolidated criteria for Reporting Qualitative research statement was used to inform reporting of the findings (online supplementary file 2).

RESULTS

Thirty-six HCPs were invited; 17 participated (hospital based: n=10) and (GPs: n=7). The 17 interviews were analysed chronologically. With no new themes emerging, it was agreed that no more interviews were required. Table 1 provides details of the participants' characteristics including gender, occupation and location of practice. The interviews for hospital-based HCPs ranged from 23 min to 50 min in duration and GP interviews ranged from 14 min to 35 min.

Four major themes were identified that relate to HCPs attitudes and approaches to weight management: the '*softly-softly' approach to weight management*; '*doing what you can with what you have*', *shifting the focus to* the *management of obstetric complications* and *unclear roles and responsibilities for lifestyle advice*. Together these four themes reflect the complexity of weight management and how hospital-based HCPs and GPs discuss and approach weight management. Furthermore, HCPs describe the constraints within the system and highlight their attitudes to weight during pregnancy. Hospital-based HCPs and GPs shared similar views in terms of weight management, with differences emerging on issues such as weighing practices and concerns about who is ultimately responsible for the management of overweight and obese pregnant women. The themes are presented in figure 1.

The 'softly-softly' approach to weight management

Hospital-based HCPs and GPs identified the tension between attitudes towards weight at a population and individual level. At the population level, concerns were clear about the dramatic increase in maternal obesity and the attitude that '*being overweight is fine…people look at themselves and say, "Well, I'm just the same size as her." or "I'm thinner than her", therefore, I'm not overweight*' (Obstetrician 03). Furthermore, socialisation and family norms have resulted in unhealthy learnt behaviours and an environment in which obesity is now acceptable; '*we're normalising obesity, it's not perceived as a problem*' (GP 05). Despite this, at an individual level when managing maternal obesity, HCPs recognised the presence of stigma relating to weight and obesity. As a result, a '*softly-softly' approach to weight management* among overweight and obese pregnant women was adopted.

> … [W]e have a very softly-softly approach to obesity and overeating and over nourishment… (Obstetrician 07)

This cautious and diplomatic approach involved trying to strike a balance between being empathetic towards the women, medicalising the issue and acknowledging their duty as HCPs to inform the woman about the risks associated with overweight and obesity. This approach was used to raise and address the topic of weight throughout pregnancy.

The approach depended on how the women reacted to initial attempts to discuss weight and thus varied across women. In participants' experience, most women reacted negatively to the topic of weight and obesity in pregnancy; they disengage, the shutters come down, they can get a bit defensive or dismissive of it and thus it is not a two-way interaction.

Hospital-based HCPs and GPs were conscious of the patient experience and that their professional role required them to be sensitive, non-judging, encouraging, motivating and to act as a counsellor for each of their overweight patients. They were concerned about using the right language so as not to cause offence, anger or upset and they acknowledged that you cannot use the word '*fat*'. However, in some cases, HCPs highlighted the need to be upfront and blunt to get the message across. Hospital-based HCPs also recognised the need to be clear, to state the facts and to be honest with the woman

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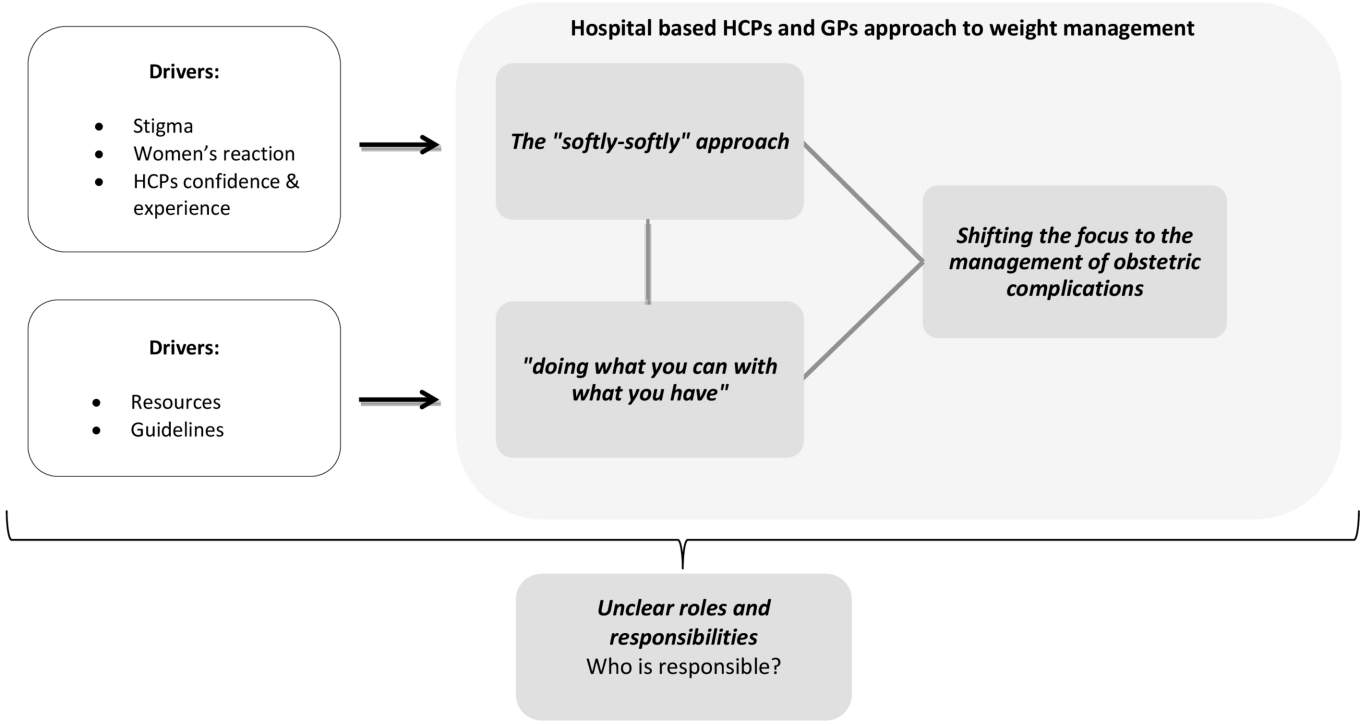


Figure 1 Drivers and approach to weight management for overweight and obese pregnant women. GPs, general practitioners; HCPs, healthcare professionals.

as it is their responsibility to help the woman manage her weight.

> No, I think we need to find a way of getting that message across and I think part of that is just normalising it…we've got to normalise chatting about weight…. I've tried a whole range of different ways and sometimes it's regarded as confrontational and I can feel that they're looking at me thinking, 'Well, I don't like that doctor.' It's not that I'm trying to make her feel bad, I want to point this out and I try and medicalise it and say, 'Well, you know your body mass index is over 30, that means you're obese, that puts you at risk of high blood pressure, diabetes. (Obstetrician 03)

Broaching the subject of weight

Hospital HCPs and GPs felt the need to adopt a '*softly-softly*' approach in relation to the topic of weight compared with a more direct approach they might take with issues such as blood pressure. Raising the subject of weight was influenced by confidence and experience. Some HCPs considered themselves experienced enough to discuss '*uncomfortable truths*' about obesity such as potential complications. Others found it difficult to broach the subject; in particular, hospital-based HCPs such as junior midwives found raising the topic awkward. To facilitate the conversation, more experienced hospital-based HCPs drew on their personal weight issues to relate to the women.

> … I'm not the skinniest person in the world. I think it's easier when you can say, 'Look, we all have our challenges and you've got to work hard at it'. (Obstetrician 06)

More detached approaches were also described, with hospital-based HCPs using tools such as a BMI categorisation tool to frame the conversation because using BMI '*isn't as upsetting to somebody as if you said, You're fat*' (midwife 01). Furthermore, because of women's weight, difficulties were often experienced when palpating a woman's abdomen and conducting fetal scans, offering an opportune situation to raise the issue and to discuss the potential complications.

> I actually say it straight out to them when I am scanning, look unfortunately you carry the extra adipose tissue I am finding it difficult, there is too much fat around you abdomen which you need to watch. I would say that straight-out… (Midwife 01)

All HCPs acknowledged that conversations about weight occur frequently throughout pregnancy as they have continuous contact with pregnant women. However, these discussions were quick conversations due to large caseloads, time and due to the number of topics that needed to be addressed within the consultations: '*it would be a couple of minutes given to a discussion about their weight and the problems with it…*' (obstetrician 09).

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'Doing what you can with what you have' to support the management of overweight and obesity

In the current '*obesogenic environment*', HCPs faced numerous challenges when supporting women to manage their weight. It was identified that the woman's health, their level of risk in pregnancy and scarce resources dictated what HCPs could do to support women's weight management efforts.

Hospital-based HCPs were adapting the evidence to deal with large caseloads of women with high BMIs '… *so we don't talk about weight to the women who are overweight, we save that for the women who are obese…*' (obstetrician 03). Due to scarce resources, priority was given to the obese women rather than overweight women: '*we have far too many women with BMIs in the 40s or even in the 50s in whom we focus our limited resources*' (obstetrician 03); therefore, women with a BMI ≥25 kg/m^2 '*doesn't raise as much of a red flag*'. Limited dietetic services within the hospital were discussed as an example of the inadequate resources, with this service only offered to those with a diagnosis of GDM. This reflected the '*doing what you can with what you have*' approach as hospital-based HCPs could do more for these pregnant women. Hospital-based HCPs emphasised that this service needed to reach all women, particularly overweight and obese women (without GDM) who could benefit from that type of intervention. Also, access to dietetics influenced GPs' management of weight; long waiting times for referrals meant that they lost that window to intervene with the woman.

Most hospital-based HCPs did not have any '*specific written guidelines*' to follow, while others described using and applying varying ranges of weight gain in pregnancy. A BMI ≥30 kg/m^2 was so common that it was considered a low priority for services, management and advice rendering some guidelines '*inadequate*'.

> I think the guidelines and the public health policies that are out there are inadequate….. they're certainly not permeating into a lot of healthcare professionals' consciousness and I think many doctors don't regard a BMI of 30 [as priority] because it's becoming more and more common. (Obstetrician 07)

The '*doing what you can with what you have*' approach to weight management was also reflected in weighing practices and attitudes towards weighing. Weighing practices varied among the HCPs, and there were divergent attitudes towards its usefulness and appropriateness. GPs highlighted that the evidence and guidelines no longer recommend weight as a '*clinical indicator*'.

> … [I]t was stopped being done as routine because it wasn't correlating with health outcomes. That's my understanding of it, but I certainly would be interested to see if there are new guidelines about it. So if it is significant, I think it should be included in the chart… (GP 03)

However, hospital-based HCPs such as midwives were keeping track of women's weight, particularly at the booking visit and again at 28 weeks. Weight and BMI was used in the hospital to refer women for anaesthetic assessment to determine the woman's '*anaesthetic risk*'.

Shifting the focus to the management of obstetric complications

The risk of obstetric complications at any stage in pregnancy takes precedent over efforts to manage weight with hospital-based HCPs acknowledging '*it's too late [to manage weight] at that stage*'. For hospital-based HCPs, weight management was superseded when obstetric complications arose. At this point, the woman's complications required obstetric care, shifting the focus to the immediate health of the woman and baby.

> If they develop hypertension, I talk about hypertension and the treatment of. It's very difficult at that point, they're now hypertensive, the baby's at risk of growth restriction, they're at risk of early delivery, we need to get their blood pressure under control, take care of the maternal problems and make sure the foetus is okay. It's too late at that stage to start going, 'Oh well, you have this now because you're fat.' no, it's too late. (Obstetrician 03)

Unclear roles and responsibilities for lifestyle advice

In the context of shared maternity care, HCPs highlighted the challenge of providing continuity of care and questioned who is ultimately responsible for managing weight. It was difficult for hospital-based HCPs to provide continuous weight management and advice as they had limited opportunity to follow-up with the same women. Therefore, responsibility of continuous care fell to the GPs. Hospital-based HCPs suggested the GP would have a better family picture and would have the opportunity to engage with these women on numerous occasions preconception and throughout pregnancy.

> I think there GP should be one that keeps an eye on it [weight], he is the continuous person that's with them. (Midwife 01)

In contrast, GPs tended to put onus on the hospital-based HCPs, reporting '*Oh well look, the hospital will take care of that*' (GP 05) or we are very stretched in general practice. Even though both hospital-based HCPs and GPs are taking part in shared antenatal care, GPs felt there was little communication between primary and secondary care, and more clarity was required around role responsibilities and expectations within the shared care setting. This would ensure that weight-related conversations were consistent and reliable.

DISCUSSION

This qualitative study demonstrates the challenges surrounding weight management during pregnancy for overweight and obese women from the perspective of hospital-based HCPs and GPs with more concerns for

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women in the higher BMI categories. Four major themes were identified: the '*softly-softly*' approach, '*doing what you can with what you have*', *shifting the focus to* the *management of obstetric complications* and *unclear roles and responsibilities for lifestyle advice*. These themes reflect how HCPs discuss and manage weight, and the challenges they face when trying to balance the medical and psychosocial needs of the women.

The '*softly-softly*' approach is defined as cautious and patient and avoids direct action or force that reflects HCPs' accounts of their approach to providing care for overweight and obese pregnant women. Similar to this study, previous research identified an increased acceptance of obesity within the population[26 38–40] with fewer people now defining themselves as overweight and obese and underestimating their weight status.[38 39 41] Furthermore, stigma in relation to obesity was also present in this study and in previous research with HCPs feeling the discomfort and awkwardness around weight conversations in pregnancy.[40] A lack of confidence and experience determined the approach used to broach the subject of weight, with younger midwives in particular finding the topic awkward. This is supported by existing literature, with junior HCPs having negative opinions about their skills for treating obese patients.[28 42 43] Hospital-based HCPs and GPs in this study were aware that weight needs to be addressed with care to avoid upsetting the women. Similarly, in other studies, HCPs were concerned about victimising the women or jeopardising their relationship with the women when raising the subject of weight.[26 28 33] Midwives tried to broach the subject of weight by discussing their own weight loss journeys. In contrast, a study exploring the experiences of HCPs found that HCPs with high BMIs felt they were not in a position to address weight and therefore veered away from the conversation.[42] Standardised questions could be used with all pregnant women to reduce stigma associated with the conversation of weight and increase HCPs' confidence.[44] Experienced, well-informed HCPs need to share their training, knowledge and experience with more junior staff, including prompts and communication strategies, in order to improve addressing the subject of weight.[31] Scarce resources determined HCPs' approach to managing weight, particularly dietetic services that were consequently limited to women with GDM. Similarly, previous research identified limited resources available within maternity units as a barrier to managing weight during pregnancy.[26 40] With a number of diet and physical activity interventions reducing GWG and GDM,[17 19 45] it is clear that services such as dietetics need to reach all women, particularly women with a BMI ≥25 kg/m^2. As revealed in this study, HCPs had different views on routine weighing practices. Previous research indicated that while there are benefits to routine weighing, various challenges such as existing resources and time constraints need to be addressed in order to successfully implement the process of routine weighing of all women at every antenatal visit.[46] Furthermore, advice regarding the amount of weight to gain in pregnancy varied. This is perhaps not surprising as there is no formal guidance for appropriate GWG in Ireland. Previous research has demonstrated an evidence–practice gap relating to the provisional of clinical care of overweight and obese pregnant women.[47] Similarly, in the UK, HCPs were unsure about appropriate GWG in pregnancy.[27] Evidence suggests that women who are not advised about appropriate GWG are more likely to gain outside the recommended ranges.[48] Therefore, further research and national guidance is needed to address divergent opinions about the benefits of weighting practices and lack of clarity on appropriate GWG to support standardised shared antenatal care.

Strengths and limitations

The inductive approach used in this qualitative study revealed the nuances and tensions involved in the management of overweight and obese pregnant women. The recruitment of a diverse sample of HCPs across settings, including hospital-based HCPs and GPs with a range of experiences and specialities is a further strength of this study. Most of the HCPs were recruited from a limited geographical area and their perceptions and approach to weight management may not reflect those of HCPs working elsewhere. Variation in interview length occurred due to constraints and demands on participants' time.

Practice implications

Hospital-based HCPs and GPs are aware of the stigma around the topic of weight, particularly for women with a BMI ≥25 kg/m^2. As part of encouraging healthy lifestyle choices, HCPs need to normalise the conversation around weight. Other health behaviours such as smoking and alcohol are considered more acceptable and easier to discuss[26]; therefore, HCPs need to approach weight conversations in a similar manner. Training, education and skill development is required for HCPs to care effectively for these women. Lack of continuity of care undermines the consistency of weight management conversations and advice. Creating multidisciplinary teams or networks within the shared antenatal care setting would enhance and encourage knowledge sharing between HCPs allowing for effective communication between primary and secondary care. Furthermore, standardised approaches to weight management are needed and, where possible, HCPs need to follow women during pregnancy to build rapport and ensure consistent information throughout. To address the sensitive nature of weight conversations, the most important question for HCPs is to ask how a patient feels about their weight in pregnancy. Negative reactions will alert HCPs that additional support may be required. Additionally, motivational interviewing could be used; this has been previously identified as an effective strategy when approaching sensitive issues such as obesity.[49]

CONCLUSION

Building rapport is necessary to deal with the sensitive nature of weight, which requires consistent contact

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and guidance from HCPs. Roles and responsibilities for weight management within shared care needs to be clearer in this '*obesogenic environment*'. By ensuring hospital-based HCPs and GPS have the confidence, knowledge and opportunity to discuss weight and lifestyle factors with pregnant women, the women in turn may initiate or maintain healthy behaviours during pregnancy. Within shared care, evidence-based guidelines that support the consistent monitoring and management of weight during pregnancy could improve care and outcomes for these women.

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Contributors CF, SMH, PMK and MB conceived and designed the study. CF and SMH developed the topic guide and study protocol. CB facilitated access to GPs for recruitment to the study. CF conducted and transcribed the interviews. CF and SMH coded the transcripts, developed and refined the themes. CF wrote the first draft of the paper. All authors contributed to successive drafts and read and approved the final manuscript.

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Competing interests None declared.

Patient consent Not required.

Ethics approval CF confirms that all patient identifiers have been removed so the patients described are not identifiable and cannot be identified through the details of the story. Ethical approval was obtained from the University College Cork Clinical Research Ethics Committee of the Cork Teaching Hospital (ref: ECM 4 (y) 06/01/15). Written informed consent was obtained from all participants.

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