

Patient and Doctor Attitudes Towards Obesity in Pregnancy

S. Lee, Y. O'Brien, K. Astbury

Women and Children's Directorate, University College Hospital Galway.

Abstract

Aim

This study aimed to assess antenatal patients' knowledge of the risks associated with obesity in pregnancy and to identify factors that hinder communication between patients and doctors on this issue.

Methods

Qualitative surveys were circulated to women at their booking visits and to doctors working in the unit.

Results

76 women and 20 doctors were recruited to the study. 58% (n=44) of women were overweight and 25% (n=19) were obese. Most women (82%, n=62) reported being aware of the risks associated with obesity in pregnancy. 8% (n=6) said they would be upset if a doctor addressed their weight with them; however, the preferred healthcare provider to address weight was a midwife. Women preferred to receive information from a healthcare provider than a leaflet or online source. 70% (n=14) of doctors did not address weight unless the woman's BMI was >34.9kg/m². The most common reason for not addressing weight was not wanting to upset the woman (20%, n=4), however only 35% (n=7) of doctors were aware of services available to offer to obese women.

Conclusion

Women want healthcare providers to address weight management with them. Doctors should be proactive in discussing obesity and be able to provide appropriate support measures for obese obstetric patients.

Introduction

Obesity is the one of the most common medical conditions in women of reproductive age. Obesity is most commonly classified according to the World Health Organisation (WHO) categorisation of body mass index (BMI), with a BMI of $>34.9\text{kg/m}^2$ classified as obese¹. According to the Royal College of Obstetricians and Gynaecologists², 21.3% of the antenatal population are classified as obese and fewer than half of pregnant women (47.3%) have a BMI within the normal range. A recent study in an Irish maternity hospital showed that maternal obesity rates rose from 16% in 2010 to 18.9% in 2017³. According to the HSE and Institute of Obstetricians and Gynaecologists' Clinical Practice Guideline on Obesity in Pregnancy⁴, studies in Galway from 2008 and 2010 found 25% of women to be obese at their booking visit, and a prevalence of Class III obesity (BMI $> 39.9\text{ kg/m}^2$) of 1.8%. Obesity is associated with significant risks in pregnancy; gestational diabetes, macrosomia, difficult vaginal delivery, increased risk of Caesarean section, wound infection, miscarriage, as well as long-term risk of diabetes and heart disease in the mother and risk of childhood obesity for the baby^{4,5}.

Studies have suggested that healthcare professionals are inconsistent in addressing weight gain with antenatal patients^{6,7,8}. A recent systematic review carried out in King's College London⁹ showed that despite women expecting the risks of obesity in pregnancy to be raised with them in early pregnancy, the topic was often avoided by both women and their healthcare professionals. A qualitative study by Flannery et al¹⁰ reported that overweight and obese women felt that they were not provided with sufficient information regarding a balanced diet by healthcare professionals. Other studies have shown that women are using publications from the health service, TV programmes, the Internet and their peers as the main sources of information on weight management in pregnancy^{11,12}, but often report the information to be confusing and contradictory.

The aim of this study was to assess antenatal patients' knowledge of their weight and of the risks associated with obesity in pregnancy. We wanted to determine whether women think it is appropriate for their obstetric team to address the topic of obesity with them. We also wanted to assess clinicians' willingness to discuss the issue with women and to determine the factors that prevent clinicians from discussing the issue, with the ultimate aim of improving the communication between clinicians and patients on this issue.

Methods

This was a qualitative cross-sectional study carried out over a two month period from November to December 2019 in the antenatal outpatient clinic in University College Hospital Galway. A survey was developed in accordance with the AMEE Guide no. 87 (*Developing questionnaires for educational research*)¹³, using a combination of structured and non-structured question formats. Participants were recruited opportunistically by face-to-face methods by asking at their booking visit if they wished to take part in the study.

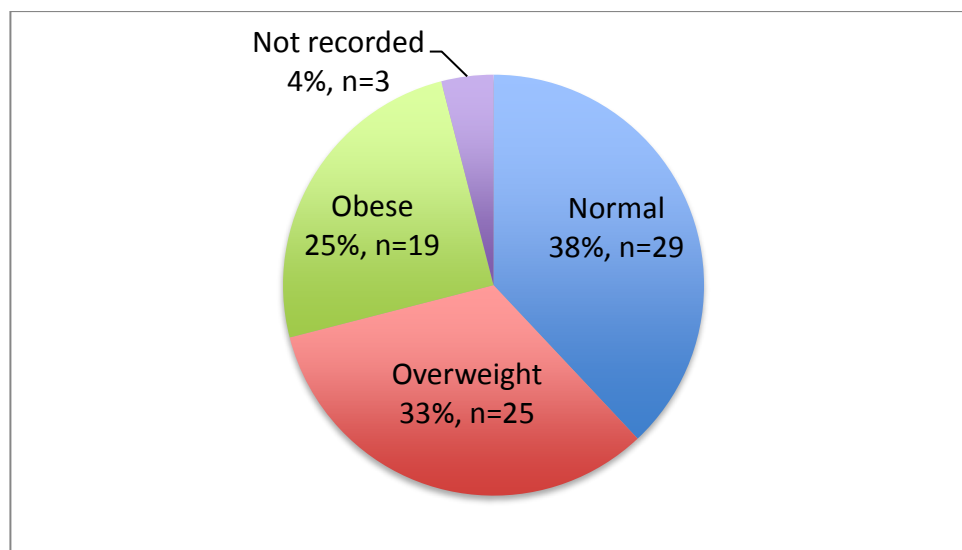
An information leaflet and written consent form were provided. Those who chose to participate were given a survey which they were asked to fill out and return to midwifery staff in the clinic. Midwifery staff then recorded the woman's height and weight and calculated their BMI, which was recorded on the survey. All BMIs were included in the study. The only exclusion criteria was being below the age of 18. A second survey was developed using the same method and given to medical staff working in the obstetric department. Ethics approval was obtained from the Ethics committee of UCHG.

Results

76 patients and 20 doctors were recruited to the study.

BMI distribution is represented on Chart 1. 25% (n=19) of booking women were obese, with a prevalence of class III obesity of 2.6% in comparison with a rate of 1.8% in 2010⁴. Of the obese women (n=19), 13 (68%) had a BMI of >29.9 kg/m² (class I obesity), 4 (21%) had a BMI of >34.9 kg/m² (class II obesity) and 2 (11%) had a BMI of >39.9 kg/m² (class III obesity). Only 3 (16%) obese women reported being aware of their BMI.

Chart 1: BMI distribution amongst booking women.



These figures are similar to the RCOG figures, which reported a 21.3% obesity rate and 47.3% normal BMIs. The percentage not recorded is due to human omission of BMI on survey forms.

71% (n=54) of women reported being aware of their weight, 92% (n=70) reported being aware of their height, but only 22% (n=17) were aware of their BMI. Of this 22%, 7 (41%) had a normal BMI, 5 (29%) were overweight, 2 (12%) were obese and 3 (18%) women believed they had a normal BMI but were overweight once BMI was calculated.

82% (n=62) of women reported being aware of the risks associated with obesity in pregnancy. The main risks and the percentage of women who reported being aware of each risk are shown in Table 1.

Risk	% aware	n=
Gestational diabetes	88	67
High blood pressure/pre-eclampsia	79	60
Long-term risk of diabetes, cardiac disease in mother	70	53
Difficult vaginal delivery	59	45
Macrosomia	57	43
Increased risk of Caesarean section	50	38
Childhood obesity in baby	50	38
VTE	49	37
Problems with diagnostic tests (USS, CTG)	45	34
Anaesthetic complications	42	32
Sleep apnea	38	29
Increased risk of wound infection in the case of CS	37	28
Miscarriage	30	23
Preterm birth	17	13
Post-partum haemorrhage	16	12
Difficulty with breast-feeding	11	8
Stillbirth	9	7
Neural tube defects	8	6

Table 1: Percentage of patients aware of the association between obesity and each perinatal risk.

Women demonstrated good awareness of the risks of gestational diabetes, high blood pressure and long-term health effects in themselves. Less than half were aware of the increased risk of VTE and Caesarean wound infection, significant causes of perinatal morbidity and mortality. Problems with diagnostic tests, an issue encountered regularly by healthcare providers in caring for the obese pregnant population, were not well recognised as a risk by women.

99% (n=75) of women believed it was appropriate for their obstetrician to address weight management with them. 8% (n=6) said they would be upset if their obstetrician or midwife addressed their weight with them. Of these women, two had a normal BMI, two were overweight and two were obese (class 1).

In terms of preferred healthcare provider to speak to about weight management, the most popular response from women was a midwife (72%, n=55), followed by a dietician (54%, n=41), their GP (47%, n=36) and lastly an obstetrician (28%, n=21). The identification of midwives as the most popular healthcare providers to do this is in keeping with previous studies¹⁴. The preferred method of communication on this issue was a healthcare provider speaking to them (71%, n=54), followed by a leaflet (32%, n=24) and online information (18%, n=14).

In the survey circulated amongst obstetric staff, 90% (n=18) of doctors reported that they check the patient's BMI at their booking visit. Most doctors (70%, n=14) did not address weight management unless the woman had a BMI of greater than 34.9kg/m²; 30% (n=6) reported speaking to women with a BMI of >29.9kg/m² and only 5% (n=1) reported speaking about it to women with a BMI of >24.9kg/m².

The most common reason for not addressing weight management was not wanting to upset the woman (20%, n=4). Other reasons included being unsure what advice to give the woman (10%, n=2) and lack of knowledge about obesity in pregnancy (5%, n=1). Only 35% (n=7) of doctors were aware of the services available in the hospital to offer to overweight women.

The most common risks and the percentage of doctors who mention these risks are shown in Table 2.

Anaesthetic complications	65	13
Increased risk of wound infection in the case of CS	65	13
High blood pressure/pre-eclampsia	50	10
VTE	50	10
Postpartum haemorrhage	45	9
Difficult vaginal delivery	40	8
Increased risk fo Caesarean section	40	8
Problems with diagnostic tests	35	7
Long term risk of diabetes, cardiac disease in mother	30	6
Childhood obesity	15	3
Miscarriage	15	3
Neural tube defects	15	3
Preterm birth	10	2
Stillbirth	10	2
Sleep apnea	5	1

Table 2: Percentage of doctors who inform obese patients of the specific perinatal risk associated with obesity.

Predictably, doctors are most likely to inform obese patients about the increased risk of gestational diabetes and macrosomia. There is a discordance between the number of doctors who report informing patients of the increased risk of wound infection and the percentage of patients who are aware of this risk. Only 50% of doctors inform obese patients about the increased risk of VTE, despite VTE being the leading cause of direct maternal death¹⁵.

Patient comments were sought. There were a number of comments confirming that women see this as an important issue for their healthcare providers to address: "Immoral not to address it", "role and responsibility to fully inform patients of health implications", "a duty to tell the mother and give her support". One woman reported that "it would be helpful to know how much/little weight should be gained". Another felt that obesity was an issue that should be addressed before pregnancy.

Feedback from doctors identified a need for dietician facilities and structured weight management mechanisms. One participant mentioned not stressing the risks enough as patients are “already conscious of their weight”.

Discussion

Obesity is a steadily rising health issue for the pregnant population. Pregnant women want their healthcare providers to discuss weight management with them, and it is the duty of an obstetrician to have the knowledge and communication skills required to discuss the risks associated with obesity in pregnancy. The MBRRACE-UK Saving Lives, Improving Mothers' Care report for 2020 shows that cardiac disease and thromboembolism – both of which have obesity as a risk factor – remain the leading cause of indirect and direct maternal death respectively, and more than half the women who die are overweight or obese¹⁵. This clearly indicates the significance of obesity for the obstetric population and the need to take action to reduce the morbidity and mortality associated with it. Patient-doctor communication is an essential part of this.

While women in this study demonstrated an awareness of some of the risks of obesity on pregnancy, there were many risks that were less well-recognised. Women demonstrated good awareness of the risks of gestational diabetes, high blood pressure and long-term risks for the mother; however, less than half recognised the difficulty associated with diagnostic tests and only 37% were aware of the increased risk of wound infection, some of the common problems encountered by healthcare professionals looking after obese patients. Despite the leading role of VTE as a source of maternal morbidity, only 49% of women were aware of the association between VTE and obesity. This indicates a need for better patient education on the risks of obesity going forward.

Only 11% of obese patients were aware of their BMI category. In order for obese women to engage properly with this issue and to recognise the increased risks they face; it is essential that they are aware of their weight and BMI. While obstetricians can relay weight and BMI at a booking visit, this is often regarded as being too late. The MBRRACE-UK report calls for public health actions to “reduce our obesogenic environment and address weight management before patients enter pregnancy”¹⁵, and there is a clear role for general practitioners in pre-conception counselling for these women.

Two opportunities for improving communication from obstetricians were identified in this study. Firstly, the main reasons for not addressing the topic of weight were a lack of knowledge and comfort in addressing obesity/weight management in pregnancy. A recent systematic review by Callaghan et al¹⁶ found a “substantial gap” in healthcare professionals’ knowledge of gestational weight gain recommendations and called for action to improve this deficiency by educating midwives and obstetricians. Our findings support the need for training for obstetricians in this area.

The Institute of Medicine issued recommendations in 2009 on optimal gestational weight gain based on pre-pregnancy BMI¹⁷ – however, numerous studies have suggested the targets for obese women are too high, and that obese women should maintain or lose weight during pregnancy^{18,19}. Further research is needed to develop clear guidance on gestational weight management for obstetricians and pregnant women, taking into account nutritional as well as caloric food content and physical activity.

Secondly, obstetricians were generally only likely to address the issue of weight with women with BMI of $>34.9\text{kg/m}^2$. A meta-analysis of European, North American and Australian cohorts²⁰ published in 2019 showed that obese women with high gestational weight gain have been shown to be at the highest risk of pregnancy complications, making it essential that these women are identified and provided with information regarding gestational weight gain and risks. However, the study also showed that low and high gestational weight gain amongst normal weight mothers was associated with a higher risk of pregnancy complications. This indicates that a discussion regarding gestational weight management should take place with all women in the course of their antenatal care.

A randomised controlled trial in 2018²¹ looked at ‘healthy conversation skills’ as a way to support behaviour change around gestational weight gain. The study showed that those in the intervention group gained less weight and felt more supported, demonstrating use of healthy conversational skills as an acceptable way to support lifestyle changes in pregnancy. However, time constraints mean that this is not always a feasible approach. Use of the FIGO Nutrition checklist²² has been suggested as a relatively fast and straightforward method of broaching the topic of nutrition and gestational weight management. A qualitative study conducted in a tertiary maternity hospital in Dublin found that women regarded the checklist as a quick and appropriate intervention²³. Obstetricians surveyed felt using the checklist meant they talked about nutrition and weight more than they would normally – however, they also felt there was insufficient time to discuss it as part of a standard antenatal visit²⁴. Going forward, methods such as use of smartphone applications in combination with a behavioural-lifestyle intervention may provide additional, time-efficient support to women and obstetricians to improve diet quality and physical activity in pregnancy²⁵.

A key area for future work on this topic would be to survey the multi-disciplinary team involved in the care of obese obstetric patients, including midwives, dieticians, general practitioners and physiotherapists, in order to ensure a collaborative approach to addressing obesity in pregnancy.

Declaration of Conflicts of Interest:

The authors have no conflict of interest to declare.

Corresponding Author:

Sadhbh Lee

Women and Children’s Directorate, University Hospital Galway.

E-mail: lees5@tcd.ie

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