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Original Article

Provision of weight management advice for obese women during pregnancy: a survey of current practice and midwives' views on future approaches

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Abstract

A semi-structured, web-based questionnaire was developed to survey midwives ($n = 241$) employed by NHS Tayside, UK, to identify current practice and views on weight management of obese women during pregnancy and the puerperium. A total of 78 (32%) midwives submitted responses following email invitation. Most respondents (79%) reported always calculating women's body mass index (BMI) at booking, with 73% routinely explaining the BMI category. In terms of future practice for obese women, although few respondents (15%) currently offer personalised advice regarding weight management based on a woman's diet and physical activity levels, 77% of respondents thought such advice would be appropriate and 69% thought it could possibly be feasible to offer such advice. The respondents viewed weight management to be of importance and felt that universal advice is appropriate, but confidence in discussing weight management and knowledge of the subject was low. Strategies to improve midwife confidence and weight management services should include training, ongoing support and definition of the midwife's role within the multidisciplinary team to support practice in the future.

Keywords: weight management, pregnancy.

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Introduction

In the UK, it is estimated that around one in five women of child-bearing age is obese and at risk of increased morbidity during pregnancy and adverse fetal outcomes (Centre for Maternal and Child Enquiries and Royal College of Obstetricians and Gynaecologists 2010). The incidence of maternal obesity has doubled in the last 20 years, and it is estimated that, as a result, an additional 47 500 women per year require high dependency care in England (Heslehurst *et al*. 2007). Furthermore, the Confidential Enquiry into Maternal and Child Health (2007) reported that 28% of women who had died during pregnancy were obese compared to a prevalence of obesity within the general maternity population of 16–19% over the same timescale.

Current guidance from NICE (National Institute for Health and Clinical Excellence 2010) on weight management during pregnancy for obese women [body mass index (BMI) $\geq 30\ \mathrm{kg\ m^{-2}}$] advises that while women should not attempt to lose weight, obstetricians, midwives, general practitioners and practice nurses should assess a woman's eating and physical activity habits and provide personalised, practical advice on healthy eating and how to be

physically active. NICE notes that there are no evidence-based UK guidelines on recommended weight-gain ranges during pregnancy. It is also recommended that the height and weight of all women are measured at the first contact with maternity services and BMI was calculated.

Midwives are well-placed to offer guidance and advice on weight management. Little is known about their current practice in this regard or their views on the opportunities for and barriers to delivering weight management advice during pregnancy and the immediate post-partum period.

The aim of the current work was to identify perceived challenges and potential approaches in the management of obese pregnant women within midwifery practice in order to assist in the development of service delivery in NHS Tayside, UK.

Materials and methods

A web-based questionnaire was developed to identify midwives' knowledge and views on weight management for obese pregnant women. The specific domains relating to weight management during pregnancy were

- weight management procedures in the antenatal period;
- perceived barriers to providing weight management guidance; and
- views on future approaches to address maternal obesity.

The questionnaire was developed by a multidisciplinary group (health visitor, midwife, dietitian and the research team) and was further modified following piloting. The questionnaire had a semi-structured format, comprising closed questions (fixed alternative and multiple choice) many of which provided optional open text boxes for respondents to provide further explanation of their response.

The questionnaire was converted to online format using the web-based survey tool, Survey Monkey© (Survey Monkey; http://www.surveymonkey.com/). An email with a URL link to the survey was sent by the Head of Midwifery to all practicing midwives employed within NHS Tayside, UK ($n = 241$), inviting them to participate in the online survey. A reminder email was sent 3 weeks later. All responses were anonymous.

Data were exported into Microsoft Excel for analysis. Descriptive statistics were used to analyse responses. Not all respondents answered every question. Valid percentages are reported. Free-text responses were examined for recurring themes.

Ethical approval was not required as this work was designed to inform service development.

Results

Although the survey was accessed on 97 occasions, responses were submitted by 78 (32%) practising midwives from a range of hospital and community work bases.

Weight management procedures in the antenatal period

In line with NICE guidelines, the majority of respondents (79%) reported calculating every woman's BMI at their booking appointment. Similarly, 73% of respondents reported 'always/frequently' explaining to women which BMI category they were in. Nearly all respondents (98%) felt that weight management

Key messages

- There is support within the midwifery profession for raising the issue of weight management with obese pregnant women.
- There is a need for midwives to consider sharing expertise with specialists in the weight management field.
- The issue of midwives training, knowledge and confidence in this important aspect of maternity care should be explored further.

for obese pregnant women was 'important/very important' and 42% of respondents reported 'frequently/always' advising obese pregnant women about the importance of weight management during pregnancy (i.e. risks and benefits). Less than half (43%) of the respondents reported that they discussed the issue of appropriate weight gain during pregnancy with obese pregnant women 'frequently/always'. A similar proportion of respondents (39%) reported regularly offering verbal advice on weight management to obese pregnant women at their booking appointment. However, only 13% of respondents had 'frequently/always' offered verbal weight management advice to obese pregnant women later in pregnancy.

Few respondents (15%) reported offering personalised advice regarding weight management based on a woman's diet and physical activity levels.

Perceived barriers to providing weight management guidance

Less than half of the respondents (46%) thought midwives should be providing weight management advice to obese women during pregnancy. Of those who were unsure if they should (46%), free-text responses were provided, which could be categorised into two broad themes: who should deliver weight management advice and the constraints of midwives to delivering weight management advice.

Many respondents highlighted the need for a multidisciplinary approach, with shared responsibilities for the provision of advice. A common issue that arose was that obese pregnant women should be referred to a specialist (e.g. dietitian), although it was recognised that midwives could provide some general advice.

Several respondents felt that weight management was out with their remit in the antenatal setting and should be tackled prior to conception,

> Women should receive more advice re weight management prior to conception though I don't think this is a midwife's role.

Many midwives commented on shortage of time being a barrier to effective weight management advice, particularly at the booking appointment. Several respondents commented that midwives have many competing demands and that by addressing weight management specifically, other areas of their remit may be neglected,

> Midwives cannot be a jack of all trades. They will end up a master of none.

The respondents also had concerns arising from their experience with the client group, particularly individual patient's reluctance to address their obesity,

> A lot of people are not receptive to weight management advice and some don't think they have a problem.
> Most women in my experience, despite given all information regarding associated risks and previous support with keen dietitian CHOOSE to ignore advice.

However, there was also an indication of concern regarding the impact of such advice,

> I think we should be giving women centred care. We should explore issues with her. Her overeating may not be as simple as nutrition advice. Also we heap guilt on to women in pregnancy, yet they go home to their situation there with perhaps little support and have to get on with it and then we nag them they have to lose weight. I think what we do in the NHS is abusive.

A large number of comments focused on client concerns when midwives broached the subject of weight management for obese pregnant women including:

- Shame or embarrassment,

  > Weight is a very personal issue which can be very embarrassing to people already and women who are pregnant can be very sensitive about their changing bodies.

- Denial,

  > Weight management is a very personal subject for many of the obese clients in a very similar way to smoking. I recently cared for a prim with a BMI of 42 who asked me not to discuss her weight in front of her husband as he was unaware of her obesity!!

- Not recognising they have a problem,

  Women are not ready to address the problem or don't recognise the need to
  If the woman is not interested or does not think she has a problem. Some women may be offended at the suggestion they have a weight problem. Women may feel they will be labelled.

- Not ready to address the problem,

  Probably most women already know they have a weight problem, but are more interested in receiving advice about their pregnancy, babies etc and dietary advice may therefore not be so high on their list of priorities.

- Not being willing to comply with advice,

  Many do not appear to feel they have a problem and do not wish to change eating/exercise habits.

- Defensive or hostile maternal attitudes,

  They are often defensive, may be feeling vulnerable, and already sensitive about their weight, sometimes in denial.

There was also general recognition that weight is a personal subject for obese women and is difficult to discuss. Concerns were expressed regarding alienation of clients and the fear of being reported for offending clients,

One woman with whom I raised (gently I thought) the RCOG guidelines re thromboembolism for women whose BMI is elevated reported me to the team leader for insulting her. She was going on a long flight and I sought only to protect her but it has made me wary of raising the issue.

Another recurring perceived barrier to providing weight management advice was midwife's confidence. A small number of respondents (19%) reported feeling 'confident/very confident' in raising the topic and discussing weight management with obese pregnant women, and less than 7% felt 'confident/very confident' in their knowledge of the subject area.

A challenge faced by some midwifery staff delivering weight management advice was their personal weight,

I'm overweight myself.
I'm of slim build and often find it difficult to talk about weight.

Views of future approaches to tackling maternal obesity

When asked who should receive weight management advice by BMI category, most respondents (60%) reported that 'all pregnant women' should receive weight management advice during pregnancy regardless of their BMI at booking. None felt that no women should receive weight management advice,

All women should be aware of the dangers of obesity as their BMI can alter during each pregnancy.
For the safety of themselves, their babies and the staff looking after them (manual handling issues).

In terms of future practice for obese women, although few respondents (15%) currently offer personalised advice regarding weight management based on a woman's diet and physical activity levels, 77% of respondents thought such advice would be appropriate and 69% thought it could possibly be feasible to offer such advice.

Of those who were unsure if midwife delivery of personalised advice regarding weight management would be appropriate, many commented that without training, delivering advice could detrimentally affect the client/midwife relationship,

I think this would only be appropriate if we were given some training in the area. The relationship the woman has with her midwife may deteriorate if advice is given in an inappropriate or insensitive way and this may have an adverse affect on advice given by the midwife regarding other areas of care.
If poor advice is given or advice given in an inappropriate way this may be detrimental to the relationship the midwife has with her client and may affect how the client deals with other advice given regarding her pregnancy, delivery and postnatal care.

One participant, although seemingly supportive of the idea of personalised weight management advice during pregnancy, highlighted that women are often apprehensive at the time of booking. She added that there is a need for continuation of care for the women throughout pregnancy and that midwives will need a defined set of guidelines to adhere to,

Booking is completed at 8 weeks here and women are sometimes experiencing nausea and may be anxious and at a first

meeting rapport can be variable. Continuity of care and a clear protocol or method of tackling the issues is key.

Respondents who were unsure if they thought it would be feasible for midwives to offer personalised advice regarding weight management to obese pregnant women had the opportunity to explain their answer in the free-text box provided. Despite clear recognition of time being a major barrier to delivering care, one participant further noted that midwives might be best placed to minimise client's burden,

In my experience, if you refer to a dietitian with their consent, they rarely attend – so midwives could be in a better position to give the advice.

Few respondents (14%) currently had access to written resources to offer obese pregnant women regarding weight management during pregnancy. Nearly all respondents (90%) thought that a bank of weight management resources (written leaflets, web resources and contacts for local community-based groups) would be useful, with 87% of respondents reporting willingness to give obese pregnant women a leaflet or postcard focusing on key weight management issues, e.g. avoid sugary drinks.

Discussion

The current work illustrates a range of issues and concerns of midwives over the delivery of weight management advice during pregnancy. The response rate was relatively low, which may be due to its wide distribution to all midwives, many of whom may have regarded the survey as not relevant to their current practice, if not involved in patient interactions during the antenatal period (e.g. labour ward staff). A strength of the methodology is the anonymous nature of responses received, allowing participants to answer questions honestly without fear of their practice being judged. The findings cannot be considered representative of all midwives and may be biased in favour of members of the profession who have strong views on the subject. Nevertheless, the findings provide direction for the general development of service and key considerations.

The findings indicate that weight management for all women in pregnancy was found to be of importance to participants, and this universal approach may minimise the negative impact of obese pregnant women feeling singled out for special attention. Despite this, fewer than half of the respondents reported frequently giving advice to obese pregnant women about the risks and benefits of weight management during pregnancy, discussing appropriate weight gain during pregnancy or offering verbal advice on weight management to obese pregnant women at their booking appointment. Fewer still offered obese pregnant women weight management advice later in pregnancy or personalised weight management advice as recommended by NICE (National Institute for Health and Clinical Excellence 2010).

The barriers identified to the provision of weight management advice included an uncertainty as to the role of the midwife within the interdisciplinary care team, time constraints, lack of knowledge and confidence in the provision of weight management advice, and a fear of detrimentally affecting the relationship nurtured with the obese pregnant woman.

Two-thirds of women do not achieve their pre-pregnancy weight by 6 weeks post-partum and the strongest predictor of post-partum weight retention is gestational weight gain (Walker *et al*. 2005). This highlights the importance of the role of the midwife in weight management during pregnancy. There is little literature exploring midwife perceptions of weight management in pregnancy, but our findings agree with the results of a survey by Timmerman *et al*. (2000), who identified the lack of patient interest in changing behaviour, lack of knowledge of useful strategies to facilitate weight management and lack of educational materials as barriers to weight management in a primary care setting. In contrast, Oteng-Ntim *et al*. (2010) reported a lack of universal prioritisation of weight management in pregnancy by health professionals. However, these authors identified the same barriers to effective weight management: lack of knowledge of the subject, lack of motivation on the part of pregnant women and midwife concerns over raising the issue of weight management in pregnancy due to the possible negative impact on the client/midwife relationship. They also raised concerns that poor antenatal clinic attendance could lead to women 'falling through the net'. In addition, postings on a

discussion thread hosted by the Royal College of Midwives (RCM) 2011 (http://www.rcm.org.uk/discussions/challenges-of-obesity/?topic=562) reflect many of the responses reported in this paper. RCM midwives acknowledged the priority that weight management has in the provision of antenatal care, the reluctance to accept or address the issue by many obese pregnant women and the concerns of midwives who may have weight management issues themselves and feel unprepared to offer advice effectively.

If the midwife is to fulfil her role in providing personalised, practical weight management advice to obese pregnant women, improved training opportunities for midwives should be put in place along with greater access to specialists and the sharing of expertise, especially with dietitians. The concerns of midwives would be best addressed in the future by improved training of midwives in this topic area, including how to raise the sensitive issue of weight management with pregnant women, how to address an individual patient's reluctance in recognising the issue and useful strategies to assist obese women in their gestational weight management.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

Contributions

MM has contributed to the analysis, interpretation, and preparation and drafting of the manuscript. AG was involved in the delivery of the survey and has contributed to the analysis, interpretation and drafting of the manuscript. CB was involved in the conception and design of the survey and has contributed to the drafting of the manuscript. EM was involved in the conception and design of the study and has contributed to the drafting of the manuscript. ASA conceived the study, participated in its design and coordination, and has contributed to the drafting of the manuscript. All authors read and approved the final manuscript.

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