

POGP CONFERENCE 2014

Weight management during pregnancy

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Abstract

Obesity is a complex condition that is the consequence of a broad range of variables relating to individual biology, eating behaviours and physical activity. In 2012, a UK specialist weight management team launched a maternity pathway after female users of this service frequently cited pregnancy as the primary trigger for their initial weight gain. An audit of the pathway was conducted in August 2014, and the outcomes of all referrals since its launch are summarized. The audit also investigated weight change during and after pregnancy, and the early results suggest that this unique service has been a success in terms of weight management at a time when the potential for significant weight gain is high. The limitations of the audit and future avenues of research are discussed.

Keywords: behaviour change, maternity pathway, pregnancy, obesity, weight management.

Obesity is a complex, multifaceted condition that is the consequence of a wide variety of variables relating to individual biology, eating behaviours and physical activity. Although national statistics for the prevalence of maternal obesity are not routinely collected in the UK, a systematic review by Campbell *et al.* (2010), which was commissioned by the National Institute for Health and Clinical Excellence (NICE, now the National Institute for Health and Care Excellence), indicated that 50% of women of child-bearing age are either overweight [body mass index (BMI)=25–29.9 kg/m²] or obese (BMI ≥ 30 kg/m²). Obesity in pregnancy poses both foetal and maternal health risks, and can also prove challenging for midwives with regard to palpation and foetal monitoring.

In 2012, commissioned by Wigan Council, the Specialist Weight Management Service (SWMS) based in Ashton, Leigh and Wigan, UK, launched a maternity pathway because female service users frequently cited pregnancy as the main trigger for their initial weight gain. The SWMS maternity pathway supports pregnant women with a BMI of ≥ 35 kg/m², and follows current clinical guidelines produced by NICE

(2010), the Centre for Maternal and Child Enquiries, and the Royal College of Obstetricians and Gynaecologists (CMACE & RCOG 2010). The aims of the service are to promote healthy pregnancies, minimize maternal weight gain, and support women post-partum with further positive lifestyle and dietary changes.

A specialist team of physiotherapists, dietitians and a public health midwife have adopted behaviour change and motivational interviewing techniques to facilitate change and explore ambivalence to it. Patients can have their routine antenatal checks performed by the midwife at SWMS appointments, and they also have access to occupational therapists if they display difficulties with occupational performance or if they would benefit from support with their mental well-being. The service frequently helps expectant mothers, and their families access other resources too. These include smoking cessation and Sure Start services, and breastfeeding networks.

An audit of the maternity pathway was conducted in August 2014, and the outcomes of all referrals (*n*=238) since the pathway was launched in 2012 are summarized in Table 1.

Although the overall did not attend (DNA) rate for the initial assessment appointments was quite high (44%), the low DNA rate for follow-up appointments (5%) suggests that, once

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Table 1. Outcomes of the referrals (total $n=238$): (BMI) body mass index

Outcome	Number of patients	Percentage of all referrals
Did not attend initial assessment appointment	105	44.0
Completed maternity pathway ($n=63$, 27%), or currently engaging with maternity pathway ($n=36$, 15%)	99	42.0
Declined service following referral	14	6.0
Did not attend follow-up appointment	12	5.0
Miscarriage or stillbirth	6	2.5
Inappropriate referrals (BMI < 35 kg/m ²)	2	0.5

patients have overcome any initial anxieties regarding accessing the SWMS, a significant number continue to engage with the service throughout and beyond their pregnancies.

The audit also investigated weight change during and after pregnancy, and early statistics suggest that this unique National Health Service (NHS) provision is a success in terms of weight management at a time when the potential for significant weight gain is high. For patients who have completed the SWMS antenatal and post-partum pathway ($n=63$), the average weight change between referral and the final antenatal appointment is +3.3% total body weight gain, which is equivalent to 3.2 kg. The average weight change between referral and 12 weeks post-partum is +0.7%, which is equivalent to a gain of just 0.3 kg. This indicates that patients who have engaged with the service have almost returned to their pre-pregnancy weight within 12 weeks of delivery.

Unfortunately, national statistics for maternal weight gain are not routinely collected in the UK, and therefore, the present audit was unable to compare local results to average weight changes in the wider obese and non-obese populations. It should also be noted that the gestation range for attending the last antenatal appointment is 20–37 weeks, so this does not reflect final weight at full term. Pregnant women have recently begun to be routinely weighed when they attend the local delivery unit, and therefore, it is planned to record these weights in the future and use the data to evaluate total weight gain in pregnancy.

Currently, two questionnaires are completed at the initial assessment appointment, and these are then repeated at the final appointment before delivery. One is a physiotherapy tool that includes questions about activity levels and the frequency of pelvic floor exercises, and the other is a more dietary based instrument that includes questions about the regularity of meals, calcium intake and pregnancy dietary supplements.

There will soon be enough data to commence an audit to evaluate changes in these key outcome measures over the course of the intervention. Therefore, it will also be possible to draw further conclusions regarding the outcome of attending the SWMS with regard to factors other than patient weight.

Acknowledgements

We would like to thank Megan Shuttleworth, Health Improvement Midwife, Wrightington, Wigan and Leigh NHS Foundation Trust, Wigan, UK, for her support, and for sharing her valued expertise with regard to the maternity clinics and the BMI pathway.

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Jessica Bryant and Claire Rigby have specialized in weight management physiotherapy since 2010, and Claire is also the operational manager for the Aintree Specialist Weight Management Service based in Ashton, Leigh and Wigan. They have 25 years of combined experience of physiotherapy practice, and both have a special interest in health behaviour change and chronic condition management. Jessica and Claire have played an integral part in the planning, running and auditing of the SWMS maternity pathway since its launch in 2012.