Statements on funding and competing interests

Funding. None identified.
Competing interests. None identified.

References


JOURNAL REVIEW: Contraceptive issues and obesity: a review of three recent publications

Reviewed by Claire I Alexander, HDD, MRCPCH
Contraception and Fertility Research Centre for Reproductive Health, Royal Infirmary of Edinburgh, 51 Little France Crescent, Old Dalkeith Road, Edinburgh EH16 4SA, UK.
E-mail: Claire.Alexander@luht.scot.nhs.uk

Introduction

Obesity is a big problem getting bigger. The prevalence of obesity now exceeds the critical threshold of 15%, as defined by the World Health Organization (WHO), to be described as an epidemic. In the UK, obesity is defined as a body mass index (BMI) ≥25.0 kg/m², overweight as 23.0–24.9 kg/m² and normal weight as ≤22.9 kg/m².

Data from the National Health and Nutrition Examination Survey (NHANES) has shown an exponential increase in obesity trends in the USA recently recording increasing BMI in women in early pregnancy over a 10-year period and an up to two-fold increase in the number of obese pregnant women in the same time period.1,2

The ‘2005 American Committee on Obstetrics and Gynecology (ACOG) guidelines on obesity in pregnancy’ stated that one-third of pregnant women in the USA are obese and recognised that these women are at increased risk of complications.3

It emphasised the need for obstetricians to provide pre-pregnancy counselling for such women and encourage weight reduction programmes prior to pregnancy.

Clearly, contraception in obese women is an important area for health professionals and, indeed, health care providers and politicians. Good contraception can give obese women the opportunity to optimise their health prior to pregnancy. It can allow time for the health professional to encourage weight loss and stabilise any other co-morbidities. It is also crucial from a health economic point of view. As a result, there have been an increasing number of studies addressing contraception in obese women. The following three recent publications have been chosen to illustrate aspects of this health issue.

Contraceptive use by diabetic and obese women.


Chuang et al. from Pennsylvania performed a cross-sectional, retrospective study using data from 11 obstetric clinics in the US. They analysed contraceptive use in 7943 sexually active non-sterilised women and compared that with BMI, age, ethnicity, marital status, education and socioeconomic status. They found a significant increase in contraceptive non-use in overweight and obese women when compared with normal-weight women. When they controlled for the co-variables mentioned, obesity remained a significant predictor of contraceptive non-use (OR 1.34, 95% CI 1.16–1.55). The authors postulate that obese women perceive themselves as less fertile and as having a negative perception of contraception in the context of being overweight.

This under-use may also illustrate the difficulties that some obese women have in accessing health care. Whilst possible weakness in the study may have occurred because the BMI was calculated from self-reported height and weight, and bias could have been introduced as data were only gathered from 11 states, it is an interesting paper and highlights the need for advice and action in relation to preventative health care and contraception in this group.


In this research article, the same multi-state database was accessed, but from 1999, and information on pregnancy intention, BMI and contraceptive use at the time of conception was analysed. Unintended pregnancy was defined as an ‘unwanted’ or ‘mis-timed’ pregnancy. The BMI data were again self-reported and the method of contraception at the time of conception was not determined. The authors recognised that not all unintended pregnancies represent contraceptive failures and not all contraceptive failures are unintended. They state that of the 6 million pregnancies in the USA each year, 3 million are unintended. Half of them, however, occur in the 90% of women who use some form of contraception. The other half occur in women who are not using contraception despite an intention not to become pregnant. The women were analysed in two groups: those using and those not using contraception, and within those groups the authors determined which women had unintended pregnancies. Following multivariable logistic regression analysis, the authors found an association between BMI and unintended pregnancy in the group using contraception in overweight and obese women when compared to normal-weight women. Obese women who were non-smokers were more likely to be having unintended pregnancies than lighter women who did not smoke. The authors hypothesise that as non-smokers were more likely to be using the combined oral contraceptive pill (COC) than smokers, the obese non-smokers were at greater risk of unintended pregnancies as the COC was more likely to fail due to problems with absorption and increased levels of free oestrogen affecting negative feedback mechanisms. The method of contraception was, however, not determined. Unfortunately the database only included women with live births and so data were not available about BMI, contraception and pregnancy intention in women who underwent induced abortion.


This group from Minneapolis analysed weight-related issues and ‘high-risk’ sexual behaviours in a group of college students completing a questionnaire. The questionnaire assessed sexual risk-taking behaviour, BMI, body mass index and unhealthy weight-modifying behaviours such as inducing vomiting, binge eating, use of laxatives, and so on. The response rate was high and of the 338 respondents, 20% were overweight and 7% obese. Some 42% of female respondents were never or rarely satisfied with their body image and one-third exhibited unhealthy weight control behaviours. There was a positive association, in female students, with high BMI and weight loss and intimation at the time of most recent intercourse. Unhealthy weight-modifying behaviour was significantly associated with casual sex, non-use of condoms and with intoxication. Interestingly, the differences were not demonstrated in the males studied. The authors conclude that whilst their findings might simply represent clustering of risk-taking behaviours previously described in adolescent health literature, it may reflect a situation where young women with increased BMI are engaging in high-risk sexual behaviours in order to feel better about themselves by demonstrating the ability to attract a partner.

Conclusions

Few anti-obesity interventions including drugs, surgery, diet and behavioural therapies have been shown to be effective in the short term for the treatment of obesity.7 Therefore, obstetricians and gynaecologists need to develop strategies in order to care for women with obesity and related problems in order to maximise health and minimise complications.

Unfortunately, the above studies suggest that obese women may not be engaging in contraceptive care as they perceive ‘high-risk’ sexual behaviours, are at greater risk of contraceptive failure and are more likely to report contraceptive non-use. Whilst there is a need for education and health promotion to tackle the rise in obesity, there is also clearly need for targeted education about contraception in addition to improved access to contraception and obese women. Further study of contraceptive use and outcomes of obesity intervention in this group would be of value.


CASE REPORT: JOURNAL REVIEW