

Does dietician intervention decrease inappropriate weight gain in pregnant patients?

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Introduction:

Maternal obesity and excessive gestational weight gain (eGWG) is prevalent in our population and is associated with increased risk of pregnancy complications for both mother and baby. A BMI greater than 25kg/m², or eGWG, is implicated in up to 30% of pregnancy complications including gestational diabetes, post partum haemorrhage and fetal macrosomia. Dietary advice is more commonly utilized to limit eGWG in higher risk patients, especially those with gestational diabetes. Queensland maternity clinical guidelines recommend that all women with BMI > 25 be referred to antenatal dietician.

Aim:

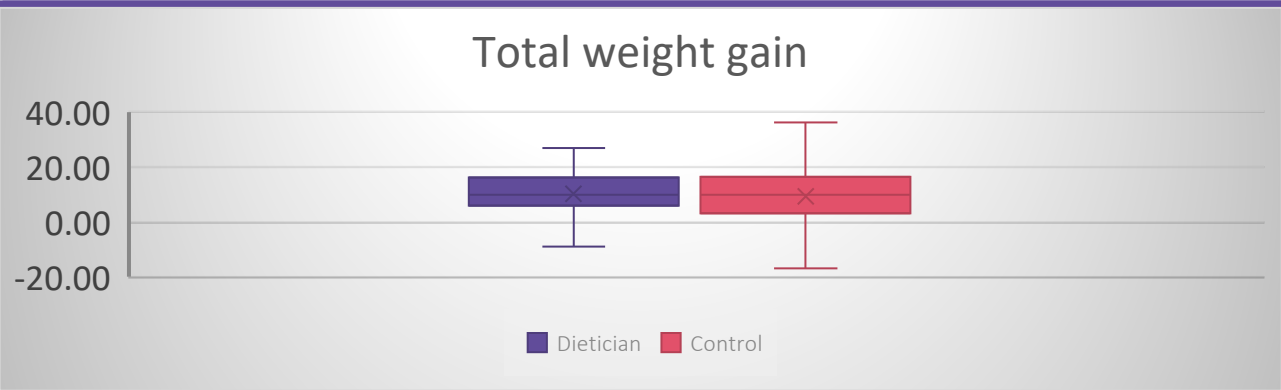
This study aims to assess whether antenatal dietician engagement improved appropriate weight gain in pregnancy

Method:

- Retrospective cohort study of all patients with BMI > 25 who were referred to the dietetics department at our outer- metropolitan hospital over 6 months period
- Intervention group - patients that attended at least 2 phone or face to face appointments
- Control group – patients that were referred but did not engage in dietetics services
- Primary outcome- was eGWG and total weight gain in pregnancy based on US institute of Medicine pregnancy weight gain standards.
- Secondary outcomes included rates of gestational diabetes, postpartum haemorrhage and fetal macrosomia

Results:

- 123 patients (64 intervention, 59 control)
- Patient's demographic, parity, booking in BMI were similar in two groups
- eGWG were similar between the two groups, with 50% in dietician intervention versus 54% in the control group (p value 0.31)
- Overall weight gain was also unchanged between dietician intervention (9.82kg 95%CI 7.79-11.85kg) and the control (9.28kg 95%CI 7.15-12.49kg).
- Fetal macrosomia (>4kg) was significantly more prevalent in the control group (17% vs 6.25%,p value 0.03).
- All other complications were similar



Conclusion: Dietician involvement does not appear to show any significant reduction in pregnancy associated weight gain in our population. While there was a reduction in the fetal macrosomia incidence found in the intervention group, the numbers were small. Future studies would look at total weight gain over the pregnancy, as well as pre- conception or first trimester dietician engagement.

Reference: QLD guidelines obesity and pregnancy, Koivusalo,S.B.,et al.(2016). "Gestational Diabetes Mellitus Can be prevented by Lifestyle Intervention: The Finnish Gestational Diabetes prevention Study (RADIEL): A Randomized Controlled Trial. "Diabetes Care ". Porteous, H., et Al.(2020). "Attendance rates and characteristics of women with obesity referred to the dietician for individual weight management advice during pregnancy. "Aust N Z J '.