

COMPARISONS OF PRENATAL COUNSELLING IN WOMEN WITH DIFFERENT PRE-PREGNANCY BMI FROM A CANADIAN POPULATION

Anika Winn¹, Angela Vinturache², Muci Wu, & Suzanne Tough^{2,3}

¹Faculty of Health Sciences, University of Calgary, ²Department of Paediatrics, ³Department of Community of Health Sciences, University of Calgary
aywinn@ucalgary.ca

INTRODUCTION

There is a dramatic increase of obesity in women of childbearing age worldwide. Obese women are at higher risk of complications during pregnancy, labour, and delivery. Furthermore, obesity in pregnancy is associated with increased number of clinical consults and investigations throughout pregnancy, which may elevate the prenatal care costs up to 16.2 folds [1]. Current guidelines recommend additional prenatal counselling of obese pregnant women- about nutrition and appropriate weight gain in pregnancy [2]. It has been suggested that obesity is a barrier in obtaining non-obstetrical healthcare services [3]. To date, there is a paucity of information regarding the impact of obesity on obtaining adequate prenatal counselling.

The objective of our study was to evaluate the prenatal counselling overweight and obese women receive in community healthcare centres in Alberta, Canada.

METHODS

A sample of 1996 women was identified from the All Our Babies (AOB) pregnancy cohort [4] based on the following criteria: singleton, term delivery (>37 weeks gestation), cephalic presentation, pre-pregnancy BMI > 18.5 kg/m². Self-administered questionnaires at <25 weeks and 28-32 weeks gestation collected information about maternal socio-demographic status and women’s experiences with eight different domains of prenatal counselling. Multivariable logistic regressions analysis explored the association between pre-pregnancy BMI and the domains of prenatal counselling, controlling for confounding variables.

RESULTS

Of the 1996 women included in the study, 1313 (65.8%) were normal weight, 472 (23.6%) were overweight, and 211 (10.6%) were obese. Obese women were more likely to have attained lower levels of education (high school or less) (p=0.001) and to have been born in/ lived in Canada for at least 5 years (p=0.01). Logistic regression models showed that overweight women were 1.3 times more likely than normal weight women to receive counselling about working during pregnancy and use of non-/prescription drugs (Table 1). However, there was no difference in the prenatal advice

received on nutrition, weight gain in pregnancy and active lifestyle between obese, overweight, and normal weight women.

Areas of prenatal counselling	Overweight (25-29.9 kg/m ²)		Obese (≥30.0 kg/m ²)	
	aOR	95% CI	aOR	95% CI
Nutrition	1.0	0.8-1.3	1.1	0.8-1.6
Vitamins	0.9	0.7-1.4	1.1	0.7-1.7
Exercise	1.2	0.9-1.5	1.1	0.8-1.6
Weight Gain	1.0	0.8-1.3	1.3	0.9-1.8
Working	1.3*	1.0-1.6	1.2	0.9-1.7
Alcohol	1.0	0.8-1.3	0.8	0.6-1.2
Drugs	1.2*	1.0-1.6	1.3	0.9-1.8
Smoking	1.1	0.9-1.4	0.9	0.6-1.2

Figure 1. Adjusted odds ratio for the relationship between prenatal counselling and pre-pregnancy BMI

Controlling Variables: education, maternal age, income, parity, time in Canada; *p-value <0.05 compared to normal weight group

DISCUSSION AND CONCLUSIONS

The demographic characteristics of the study sample align with the pregnant and parenting population of an urban centre in Canada. Pre-pregnancy BMI did not appear to influence the level of prenatal counselling women receive regarding nutrition, vitamin and mineral supplements, exercise, weight gain and alcohol use during pregnancy in community health care centers in Alberta, Canada.

REFERENCES

1. Chu, S. Y. et al. *N Engl J Med.* **358**: 1444-1453, 2008.
2. Davies, G. A. et al. *Int J Gynaecol Obstet.* **110**: 167-173, 2010.
3. Levine, L. D. et al. *Am J Perinatol.* **30**, 401-405, 2013.
4. McDonald, S.W. et al. *BMC Pregnancy Childbirth.* **13 Suppl 1**:S2, 2013.