Can I eat that? Nutrition knowledge and behaviours or practices of pregnant women and clinicians

Dr Amelia Lee
Nutrition and Food services
Diet and pregnancy outcomes

Maternal “Junk Food” Diet During Pregnancy as a Predictor of High Birthweight: Findings from the Healthy Beginnings Trial

Li Ming Wen, MD, MMed, PhD, Judy M. Simpson, PhD, Chris Rissel, PhD, and Louise A. Baur, PhD

- Mothers who had not consumed “junk food” were less likely to have a newborn >4kg, (AOR 0.36, 95% CI 0.14 – 0.91)

- OWT/OB mothers were more likely to have a newborn >4kg, (AOR AOR overweight 3.03, 95% CI 1.35-6.80; obese 3.79, 95% CI 1.41-10.25)
Maternal dietary patterns and preterm delivery: results from large prospective cohort study

Reduced risk of preterm delivery
(Hazard Ratio 0.88, 0.80-0.97)
↑Obesity
↑Diabetes
↑CVD

ABS 2017-18
59.7% women
27.4% children

Optimal health for mother and baby

Epigenetics
↓ burden of disease
CVD, DB, OB

Dietary intake of pregnant women

Antenatal care:
MW, OB, Dietitians

Attitudes
Beliefs
Practices
Knowledge – limited

Barriers e.g. time, client distress, not their job, lacked confidence, lacked knowledge, insufficient training

Food access – affordability, food security

Knowledge

SES – household income, occupation

Attitudes
Perceptions
Beliefs
Religion
Motivations

Social supports – family, partner, friends

Personal preferences - taste

Physiology

Age
Medical conditions
Lifespan – pregnancy

Parity

OWT/OB
Intolerances
Allergies

Pregnancy symptoms e.g. Nausea, vomiting, constipation, heartburn, aversions, cravings

Education
Literacy
Sources of information

Vegetarianism
Cultural practices

SES – household income, occupation

Personal preferences - taste

Physiology

Age
Medical conditions
Lifespan – pregnancy

Parity

Mental health

Parity
Latest guidelines
Aims & Mixed Methods

1. To assess knowledge using a 76-item Questionnaire
   a) Healthy eating
   b) Supplements
   c) High risk foods
   d) Alcohol
   e) Weight gain targets

2. To explain knowledge findings and explore behaviour and/or practice through focus groups and interviews
Findings

Preg. Nutr. Knowledge scores (One-way ANOVA)

<table>
<thead>
<tr>
<th></th>
<th>Women ( n = 219 )</th>
<th>Providers ( n = 97 )</th>
<th>Dietitians ( n = 211 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>34.5 (45%)</td>
<td>42.8 (56%)</td>
<td>50.6 (67%)</td>
</tr>
<tr>
<td>SD</td>
<td>11.0</td>
<td>8.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Significance, ( p )</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
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<tr>
<td>Effect size, ( d )</td>
<td>0.7</td>
<td>1.5</td>
<td>0.7</td>
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Knowledge of pregnancy nutrition

WELL KNOWN

• Need for and role of folic acid
• Green veg as a source of folate
• Abstain from alcohol
• Avoid deli meat and feta

NOT WELL KNOWN

• Peanut and juice as a source of folate
• Food sources of iodine
• Core food group recommendations
• Weight gain targets
• Identifying other high risk foods
<table>
<thead>
<tr>
<th></th>
<th>Providers</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoiding high risk foods</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Not drinking alcohol</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Importance of folic acid and iodine</td>
<td>✔</td>
<td>?</td>
</tr>
<tr>
<td>supplementaton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choosing nutritious foods</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>Weight gain recommendations</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>
Women said:

• Did not always know what to eat and why
• Adopted healthier eating habits and limited some high Listeria risk foods
• Relied on pregnancy care providers
  → 33% received advice
  → Wanted practical advice
• Searched the internet
Midwives and doctors said:

• Nutrition is important during pregnancy, but not well trained
• 68% gave some nutrition advice to women
  → 1st appointment
  → Advice was general
  → Doctors less likely to give advice
• Time constraints
• Limited educational (CPD) opportunities
• Source of info. dietitians and journals
Strengths and Limitations

- Good sample size
- Developed validated pregnancy nutrition questionnaire
- Use of mixed methods
  - Sample bias – Women more educated, not many doctors
  - Response bias
  - Participants self-selected – more interested in nutrition
  - Recall bias
  - Interviewer bias
Conclusions

• Gaps in nutrition knowledge
  → Women less likely to eat in accordance with ADG
  → MW/DR less likely to provide nutrition education

• Education should include declarative and procedural knowledge and reasons for recommendation

• Dietitians can provide nutrition education/training
  → More dietitians to see women
  → Train pregnancy care providers