Smoking Among Pregnant Women in the Baffin Region of Nunavut

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Background

- 80% of pregnant women in Nunavut smoke compared to the national average of 16.5%\(^1\).
- No available literature exists to help explain this regional variation.
- Health effects of smoking are two-fold for pregnant women.
- Nunavut has one of the highest rates of lung cancer in the world, highest pre-term and small for gestational age babies in Canada\(^2\text{-}^3\).
Population Health Perspective

Social Ecology Theory

Individual Factors
- Maternal attachment
- Socio-demographic profile
- Attitudes and behaviours
- Nicotine addiction
- Readiness to quit smoking (TTM)
- Other

Environmental Factors
- Geographic location
- Access to resources / health care
- Social environment
- Culture
- Other

Structural Factors
- Policies
- Health care providers
- Access to resources / health care
- Other
Objectives

- To build a knowledge base for understanding smoking behaviours among pregnant women in Nunavut.
- To examine perceived barriers and facilitators to smoking cessation among pregnant smokers.
Methods

- Qualitative study design
- Semi-structured interview format
- Interviews audio recorded and transcribed verbatim
- 17 women participated in interviews
- Recruitment took place between May-June 2010 at the Qikiqtani General Hospital, a 35-bed full-service facility and the Tammaativvik Medical Boarding Home in Iqaluit, Nunavut.
- No refusals!
Participants

- Participants were eligible for the study if:
  - they were pregnant
  - ≥16 years of age
  - smoked at least 1 cigarette since learning they were pregnant
  - agreed to participate in an interview
  - were able to articulate their experience in English or Inuktitut
  - were capable of providing informed consent.

- Participants were excluded if they were unable to give informed consent in their own language and/or if they could not speak English or Inuktitut.
### Participant characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (years)</td>
<td>26.9(5.6)</td>
</tr>
<tr>
<td>First pregnancy</td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>33.3%</td>
</tr>
<tr>
<td>Yes</td>
<td>11.1%</td>
</tr>
<tr>
<td>No</td>
<td>88.9%</td>
</tr>
<tr>
<td>Married</td>
<td>6.7%</td>
</tr>
<tr>
<td>No. children living at home</td>
<td>37.5%</td>
</tr>
<tr>
<td>Common-law</td>
<td>53.3%</td>
</tr>
<tr>
<td>1</td>
<td>37.5%</td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>6.7%</td>
</tr>
<tr>
<td>2</td>
<td>37.5%</td>
</tr>
<tr>
<td>Highest level of education completed</td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>74.2%</td>
</tr>
<tr>
<td>4+</td>
<td>18.7%</td>
</tr>
<tr>
<td>High school or equivalent</td>
<td>10.6%</td>
</tr>
<tr>
<td>Keeping baby</td>
<td>85.9%</td>
</tr>
<tr>
<td>Some post-secondary</td>
<td>6.1%</td>
</tr>
<tr>
<td>Adopting out</td>
<td>14.1%</td>
</tr>
<tr>
<td>Post-secondary</td>
<td>9.1%</td>
</tr>
<tr>
<td>Prenatal care</td>
<td></td>
</tr>
<tr>
<td>Household income (per year)</td>
<td></td>
</tr>
<tr>
<td>&lt;$19 999</td>
<td>50.0%</td>
</tr>
<tr>
<td>Public Health Nurse</td>
<td>50.0%</td>
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<tr>
<td>$20 000-$39 999</td>
<td>8.4%</td>
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<tr>
<td>Nurse Practitioner</td>
<td>6.3%</td>
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<tr>
<td>$40 000-$59 999</td>
<td>8.4%</td>
</tr>
<tr>
<td>Other</td>
<td>6.3%</td>
</tr>
<tr>
<td>&gt;$60 000</td>
<td>33.2%</td>
</tr>
<tr>
<td>No prenatal care</td>
<td>12.5%</td>
</tr>
</tbody>
</table>
Results

- Overall very early initiation to smoking in this sample, range was 5-12 years old. Average age at first cigarette was 8.2 years old.
- Parity is high for women in study sample (i.e. 31 years old and experiencing 10th pregnancy)
- Housing instability, domestic violence, single parenting, low education, boredom, and financial issues common themes throughout interviews.
Results

- Iqaluit experience increased smoking behaviours in pregnant women, some as much as 2-3 times their regular cigarette consumption
  
  “when I was back home, I normally was smoking six sticks a day but then when I came here (Iqaluit), half a pack a day”—Genevieve

- Reasons included included partner instability/troubled relationships and the stress of leaving their children behind in their communities.
Results

- Approximately half of the women interviewed (n=8) stated they started smoking more when they found out they were pregnant (current pregnancy) than in pre-pregnancy.
- Most women identified that they understood there were health risks to their fetus, but this was not sufficient motivation to have them quit.

“I know it’s hurting the baby but maybe due to my addiction, I’m not quitting”—Eva
Results

- Women who have had previous pregnancies, had children who manifested symptoms related to tobacco exposure ($n=7$), were still smoking during their current pregnancy.

“Ah, she (her other daughter) has a reflux.. and she has bronchitis and pneumonias and all these lung problems”—Olivia
Results

- The social aspect of smoking was the most prominent overarching theme as a barrier to smoking cessation.
- Most women have smoking partners, friends or family members of which they are exposed to everyday.
- Women said that it would be difficult to resist smoking if they saw their friends or family go out for a cigarette, as most are surrounded by other smokers on a daily basis, however this was never identified as a barrier.

“I think it would be harder to quit because I got a lot of friends who smoke cigarettes and my parent smoke cigarettes and my boyfriend and my brother”—Jackie
Results

- Most women identified that their addiction to nicotine would pose a problem, but a patch to help curb the cravings would help them quit smoking.
- Having someone to chat with or go for a walk with help distract them from smoking,
- Most women wanted more programs like moms and tots or group activities to get them out of the house. There was a lot of emphasis on fresh air and outdoors to help them remain smoke free.
Results

- When asked if the women knew where they could go for help or support to quit smoking, the majority stated that they did not know of any existing programs or did not know where to go.
Results

- All women reported stress as the main reason for their continued smoking throughout their pregnancy.

- All women identified that smoking was used as a coping mechanism as it helped them relax, and temporarily relieved their anxiety.
Conclusion

- Stress, boredom and the social experience of smoking emerged as the biggest themes of the underlying reasons why women continue to smoke during their pregnancy.
- Smoking cessation poses a major challenge, primarily as a pressing public health problem.
- This is one of the first studies detailing the women’s perceptions on their smoking behaviours during their pregnancy.
Recommendations

- Further research is required to address smoking among higher-risk pregnancies.
- Intervention strategies need to be created specifically for pregnant women in the North.
Thank you!

- A special thank you to:
  - Dr. Robert Reid
  - OHSNI
  - OTRU
  - Jim & Oleepeeka
  - All the women who participated in this study
Questions?
References

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3. IT Kanatami - 2009 Inuit & Cancer: Fact Sheets