Breaking the Cycle: Intervening to Support Substance-Involved Women and Mothers and their Young Children

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Mothercraft (Breaking the Cycle)

ADDRESSING ADDICTIONS TOGETHER: Goals

1. To establish a network among those working with addicted parents and those working with their young children.

2. To develop a “mutual” understanding of addiction and its effects on infants and toddlers.

3. To make recommendations for changes needed in the system of services to promote optimal outcomes.
ADDRESSING ADDICTIONS TOGETHER: Recommendations

1. Improved cooperation and communication among agencies.
3. Develop “user-friendly” family-centred services.
4. Peer support.
5. Case management.

THE NEED

- 6.25% of Toronto newborns (4,000 – 6,000 newborns per year) had been exposed to crack cocaine during the last trimester of pregnancy (Foreman et al., 1994)

- In the general neonatal population,
  - ~1/100 are affected by Fetal Alcohol Spectrum Disorder
  - ~1/1000 are affected by Fetal Alcohol Syndrome (Health Canada 2003)
**THE IMPACTS**

- **Effects in pregnancy**: spontaneous abortion, preterm birth, placenta abruptio, intrauterine growth restriction, lower birth weight, small head circumference

- **Impact on child health/development**: FASD, NAS, neurodevelopmental symptoms, increased risk of SIDS, increased risk of behavioural problems

- **Impact on parenting**: regulation problems, attachment disturbances, child maltreatment

**BREAKING the CYCLE: PRINCIPLES AND FEATURES**

- A collaborative, community-based response
- A comprehensive, integrated, cross-sectoral system response
- Prevention through early identification
- Improved parenting skills and the prevention of child maltreatment
- “Single access” model with street outreach and home visitation components
- **Evaluation**: engagement, maternal health, parenting, child development and well-being
BREAKING the CYCLE: ADMISSION CRITERIA

Breaking the Cycle serves women:

1) Who are pregnant and/or parenting at least one child under the age of 6 years; and

2) Who are experiencing problems of substance use or recovery; and

3) Who desire support around their substance use or recovery

BTC PARTNERS

Mothercraft

MotheRisk - Hospital for Sick Children

St. Joseph’s Health Centre

Jean Tweed Centre

St. Michael’s Hospital

Toronto Public Health

Children’s Aid Society of Toronto

Ministry of Community Safety and Corrections

Catholic Children’s Aid Society of Toronto
BTC PROGRAMS AND SERVICES

**Addictions**
- Relapse Prevention Group
- Recovery Group
- Life Skills Group
- Individual Counselling
- Connections Group

**Developmental Clinic**
- Screening and Assessment
- Developmental and Interational Guidance
- Parent-Child Psychotherapy
- Home Visiting
- Early Intervention

**Mental Health Counselling**

**Health/Medical Services**
- FASD Assessment/Diagnostic Clinic
- Pre-Postnatal Counselling

**Basic Needs Support**
- Food
- Clothing
- Transportation

**Parenting**
- New Mom's Support Group
- Nobody's Perfect Parenting Program
- Cooking Healthy Together
- Parent-Child "Mother Goose" Program
- "Haven 'You Make the Difference'"
- "Learning Through Play" Group
- Access Visits

THE SUSAN STORY
FAMILY HISTORY

BTC mothers reported the following:

- 48% of their mothers had/have substance use problems
- 65% of their fathers had substance use problems
- 82% were physically abused -- most likely their mother or their father/mother's partner
- 84% experienced emotional abuse -- most likely by their mother, or their father/mother's partner
- 70% were sexually abused (50% report that they were sexually abused by more than one perpetrator)

SUBSTANCE USE HISTORY

BTC mothers reported their average age of first use:

- Nicotine aged 13.1
- Inhalants aged 13.1
- Alcohol aged 14
- Cannabis aged 15.8
- Hallucinogens aged 15.8
- Amphetamines aged 16.8
- Barbituates/sleeping pills aged 18.2
- Cocaine aged 19.4
- Tranquilizers aged 20
- Crack cocaine aged 21.5
- Heroin aged 21.8
- Antidepressants aged 26.3
EATING DISORDERS

Eating disorders were a problem for 30.3% of the BTC mothers:

- 47% indicated that their eating disorders were active and ongoing
- 32% reported that they were bulimic
- 24% reported that they were compulsive overeaters
- 22% reported multiple eating disorders
- 12% reported that they were anorexic

SELF-HARM BEHAVIOURS

A number of mothers at Breaking the Cycle shared their experiences of self harm:

- 26.8% reported that they engage in self-harm behaviours, or had engaged in self-harm behaviours in the past
- The most common self-harm behaviour by BTC mothers is cutting or slashing.
PARTNER ABUSE

• 82% of BTC mothers reported a history of physical abuse

• 40% of BTC mothers reported that their current partners are physically abusive

• 29% of BTC mothers reported that their current partners are emotionally abusive

• 68.8% of mothers reported that their current partners are substance abusers

EMOTIONAL/PSYCHOLOGICAL PROBLEMS

BTC mothers reported experiencing the following symptoms in the 6 month period prior to intake:

90% tension, anxiety or nervousness
93.9% depression
48.9% fear or phobias
46.2% amnesia
75% sleeping pattern disturbances
67.4% eating pattern disturbances
41.3% violent thoughts or feelings
30.4% thoughts of suicide
TREATMENT HISTORY

The majority of BTC mothers (82%) have had previous involvement in treatment programs. Of the women who reported previous treatment attempts:

• 50.3% had been treated in a residential program
• 45.5% reported previous self-help treatment
• 44.4% had been treated at detoxification centres
• 29.5% had attended day programs
• 28.6% were previously involved in addiction counselling
• 13.1% had used a hospital treatment program and 10.9% had been treated with Antabuse/Temposil

POVERTY

More than 86% of BTC families live on less than $15,000 per Year. The yearly income reported by BTC mothers is:

- 44.3% Less than $9,999
- 42.0% 10,000-14,999
- 4.3% 15,000-19,999
- 4.3% 20,000-29,999
- 1.4% 30,000-39,999
- 2.2% 40,000-49,999
- 1.4% 50,000 or more
STRATEGIES THAT DON’T SEEM TO WORK

“Just Say No” has done as much for substance use treatment AS “Have a nice day” has done for the treatment of major depression.
MOTIVATIONAL INTERVIEWING
(Miller & Rollnick, 1992)

“The approach you take is one of the strongest indicators of whether a woman will change”

- Relational and interactive
- Avoid labels
- Reduce resistance
- Foster commitment to change
- Negotiate plans
- Remove barriers to change
- Accept relapse

Basic Principles of Motivational Interviewing

1. **Express empathy**
   - Acceptance facilitates change
   - Acceptance is not the same thing as approval

2. **Roll with resistance**
   - Cue to change our approach
   - Invite, rather than impose, new perspectives

3. **Avoid argument**
Basic Principles of Motivational Interviewing

4. Develop discrepancy
   - Between where she is and where she wants to be
   - Let her present arguments for change

5. Focus on self-efficacy
   - Focus on strengths
   - Notice small changes
   - The provider’s expectations for change has a powerful impact on outcome
   - Share other stories of success

READINESS to CHANGE

Importance (why should I make the change)

+ 

Confidence (how can I make the change)

= 

Readiness
### STAGES of CHANGE MODEL

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>“I don’t have a problem.”</td>
</tr>
<tr>
<td>Contemplation</td>
<td>“Maybe I do, maybe I don’t”</td>
</tr>
<tr>
<td>Preparation</td>
<td>“Yes I do. What should I do about it?”</td>
</tr>
<tr>
<td>Action</td>
<td>“Following the plan I made in preparation”</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Major change takes place. More than just “not using”</td>
</tr>
</tbody>
</table>

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**Components of successful approaches**

Health Canada, 2002  
United Nations Office on Drugs and Crime, 2005

- Collaborative relationships and agreements with other services and systems;
- Outreach to facilitate engagement of women and children into comprehensive programs;
- Acknowledgement and attention to the context of women’s substance use in pregnancy and while parenting;
- Culturally competent programming;
- Adoption of harm reduction approaches;
- Use of motivational interviewing strategies;
- Comprehensive, intensive, coordinated care that is multidisciplinary and integrates maternal and child services
BTC Pregnancy Outreach: Program Evaluation

• Purpose:
  – Efficacy of pregnancy outreach model to engage homeless, pregnant women using substances
  – Impact of early engagement on maternal, fetal, child outcomes

• Participants:
  – 160 women (April 2001 – May 2005)
  – Mean age = 28 years

• Measures:
  – CPNP Prenatal Information
  – CPNP Postnatal Information
  – Focus Groups

Results: Clinical Outcomes

• Early Engagement

<table>
<thead>
<tr>
<th>Month of Gestation at Admission</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 months</td>
<td>31</td>
</tr>
<tr>
<td>4-6 months</td>
<td>40</td>
</tr>
<tr>
<td>7-9 months</td>
<td>29</td>
</tr>
</tbody>
</table>
Results: Clinical Outcomes

• Decreased Isolation

<table>
<thead>
<tr>
<th>Referrals to Community Services</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaking the Cycle/ BTC Satellite Program</td>
<td>50</td>
</tr>
<tr>
<td>Prenatal/Health Care Provider</td>
<td>72</td>
</tr>
<tr>
<td>Withdrawal Management/Addiction Treatment</td>
<td>39</td>
</tr>
<tr>
<td>Hostel/Shelter</td>
<td>29</td>
</tr>
<tr>
<td>Child Welfare</td>
<td>17</td>
</tr>
<tr>
<td>Community Agency</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
</tbody>
</table>

Results: Clinical Outcomes

• “Early-Identified” vs. “Late-Identified” (Pepler et al., 2002):
  - Fewer prenatal risk factors
  - Reduced prenatal substance exposure
  - Fewer birth complications
  - Higher birth weight
  - Better postnatal health
  - Reduced length of hospital stay
Results: Clinical Outcomes

• Treatment Goal Completion
  
  – In comparison to pregnant women entering BTC pre-2001, there was a trend for pregnant women who entered through the BTC Pregnancy Outreach Program to be more likely to complete treatment goals.

Results: Clinical Outcomes

• Maintenance of Recovery
  
  – In comparison to pregnant women entering BTC pre-2001, there was a trend for pregnant women who entered through the BTC Pregnancy Outreach Program to be more likely to be maintaining their recovery from substance use at discharge.
Results: Clinical Outcomes

• Child Custody
  – In comparison to pregnant women entering BTC pre-2001, there was a trend for pregnant women who entered through the BTC Pregnancy Outreach Program to be more likely to have custody of their children at discharge.

Summary of Findings

• High risk context of women’s lives who are engaged in BTC Pregnancy Outreach Program
• BTC Pregnancy Outreach Program effectively engaging this high risk group of women during early stages of pregnancy
• Immediate and enduring impact of early engagement on maternal, fetal, and child outcomes
BTC Program Evaluation

• Purpose of evaluation:
  – Engagement of pregnant women, mothers and children
  – Health outcomes of pregnant women and mothers
  – Maternal parenting outcomes
  – Child health and development outcomes

Service Data

<table>
<thead>
<tr>
<th>Service</th>
<th>Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy outreach services</td>
<td>225 families</td>
</tr>
<tr>
<td>Case management services at referral</td>
<td>330 families</td>
</tr>
<tr>
<td>Intake-only services</td>
<td>282 families</td>
</tr>
<tr>
<td>Ongoing/active services</td>
<td>333 families</td>
</tr>
<tr>
<td><strong>Total Families</strong></td>
<td><strong>1170</strong></td>
</tr>
</tbody>
</table>
BTC Program Evaluation: Measures

- BTC Intake Form
- Battelle Developmental Inventory – Screening Version
- Parenting Stress Index
- Alcohol Dependence Scale
- Drug Abuse Screening Test
- BTC Discharge Form
- Focus Groups
- CAPC Mandatory Tools:
  - Parenting Sense of Competence Scale
  - Maternal Postnatal Attachment Scale
  - Social Support Behaviours Scale
  - Knowledge of Services Questionnaire

Results: Pregnancy & Parenting

- Pregnancy History

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
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<tbody>
<tr>
<td>Previous pregnancies</td>
<td>5</td>
</tr>
<tr>
<td>Live births</td>
<td>2</td>
</tr>
<tr>
<td>Terminations</td>
<td>2</td>
</tr>
<tr>
<td>Miscarriage</td>
<td>1</td>
</tr>
</tbody>
</table>

- Custody Status of Children
  - 32% custody of mother
  - 31% care of another family member
  - 37% foster care
Results: BTC Children

- Average age = 1.5 years
- Sex: 48% male; 52% female
- Average of 2 prenatal risks (range=0-11)
- 34% reported birth complications

Results: Mother-Child Separations

- Child Welfare Involvement

<table>
<thead>
<tr>
<th>Time of Intervention</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Visit</td>
<td>56</td>
</tr>
<tr>
<td>Within 6 months</td>
<td>20</td>
</tr>
<tr>
<td>6-12 months</td>
<td>5</td>
</tr>
<tr>
<td>After 12 months</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
</tbody>
</table>

- Child Separations from Mother

<table>
<thead>
<tr>
<th># Separations</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>83</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4+</td>
<td>2</td>
</tr>
</tbody>
</table>
Results: Maternal Concerns

<table>
<thead>
<tr>
<th>Concerns</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental progress</td>
<td>62</td>
</tr>
<tr>
<td>Effect of substance exposure on child health and development</td>
<td>21</td>
</tr>
<tr>
<td>Parent-child relationship/attachment</td>
<td>11</td>
</tr>
</tbody>
</table>

Results: Clinical Outcomes

Child Development Outcomes

![Graph showing child development score over time](image)

- Time 1
- Time 2

Child Age (months)
Results: Clinical Outcomes

Parenting Outcomes

• Parenting Sense of Competence
  – Significantly higher levels of perceived parenting efficacy, parenting satisfaction, and total parenting competence

• Maternal-Infant Attachment
  – Significantly higher levels of quality of attachment and lower levels of maternal hostility
Results: Clinical Outcomes

Social Support

• Women reported significantly higher levels of support from family and friends in the following areas:
  - Emotional support
  - Social support
  - Practical support
  - Financial support
  - Guidance support

Results: Clinical Outcomes

Knowledge of Services

• More informed about programs in community
• Better able to access help from other agencies
• Better able to deal with practical problems
• Better able to meet basic needs
• More connected with other mothers
• More a part of the community where they lived
Results: Clinical Outcomes

Discharge Outcomes

• Women in program > 1 year:
  – Regular program attendance
  – Utilize wider breadth of services
  – IFSP goals completed at discharge

• Regular attendance and service use at BTC related to more severe trauma history at intake

Summary of Findings

• Over a 10-year period, BTC has consistently engaged an extremely high-risk population of women and children

• Children receiving early intervention services are functioning within a normal range of development and along normative developmental trajectories for age

• Mothers have shown decreasing parenting stress over time, with a significantly greater slope of change for mothers engaged earlier in pregnancy
Summary of Findings

• There was a significant increase in mother’s sense of parenting competence and on maternal-infant attachment while accessing service

• Mothers reported an increased knowledge of and confidence in services in the community

• Mothers reported an increase in the quality of their social supports over the course of intervention at BTC

Evaluating Treatment for Substance-Using Women: A Focus on Relationships

We have been awarded a five-year CIHR grant to evaluate Breaking the Cycle:

Study 1: Evaluate BTC mothers’ changes in comparison to Options for Change (Kingston)

Study 2: Focus on processes of change for mothers and children in BTC
Thank you

Infant Mental Health Rounds
are made possible by

Infant Mental Health Promotion (IMP)
and
The Infant Psychiatry Program
of the Hospital for Sick Children

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&ss=Infant+Psychiatry+Program&ssID=10104