
BREAKING THE CYCLE: MEASURES OF PROGRESS 1995 – 2005

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The BTC Evaluation Team
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DEDICATION

This report is dedicated to Maura M (1969 – 2005) -- a strong, intelligent, beautiful and caring woman, friend and mother, who filled her young daughter's early years with joy and love.

EXECUTIVE SUMMARY

Breaking the Cycle (BTC) is one of Canada's first early identification and prevention programs for pregnant women and mothers who are using alcohol or other substances, and their young children. In addition to substance-use and exposure, women and children served at BTC experience a host of complex conditions of risk including mental health problems, domestic violence, homelessness, poverty, health/medical vulnerabilities and maltreatment/trauma. These conditions are exacerbated by the families' alienation from health and social supports.

Since 1995, BTC has developed a comprehensive, cross-sectoral, relationship-based a range of integrated services through a single-access model, with home visitation and outreach components. BTC operates through the efforts of a partnership including Mothercraft, the Jean Tweed Centre, Motherisk-Hospital for Sick Children, Children's Aid Society of Toronto, Catholic Children's Aid Society, Toronto Public Health and St. Joseph's Health Centre. BTC offers individual and group addiction treatment, parenting programs, child care, child developmental services (including screening, assessment and intervention), health/medical services, FASD Diagnostic Clinic, mental health counselling, case management, parent-infant counselling, home visitation, pregnancy outreach, and support around instrumental needs (including food, clothing and transportation). The success of this comprehensive model to engage and retain substance involved women and their children in service has provided an opportunity to gain a deeper understanding of the lives of substance-involved women and children. The program has developed and evolved in an emergent way based on the learnings gained from women and their children, and through findings of previous evaluations (Moore et al., 1998; Pepler et al., 2002). BTC has been the subject of ongoing and uninterrupted local evaluation since 1995, and the present evaluation builds on previous evaluations.

Part 1 of this report sets the context for BTC by reviewing its relationship with the CAPC Guiding Principles and Health Goals for Canada; and by reviewing the impacts of substance use during pregnancy and in the postnatal environment.

Part 2 traces the development of BTC since 1995. It outlines the program background, describes the partnership and governance structure, and reviews the BTC program model, programs and services, values and philosophy, and approaches and strategies used. This section also describes new BTC programs that have been developed over the past ten years, including the BTC Pregnancy Outreach Program; FASD prevention, diagnostic and early intervention services; tobacco reduction initiatives; the integration of probation and parole services; and a contribution to a framework for decision-making regarding custody of children.

Part 3 of this report presents 10 years of data on a sample of approximately 770 substance-involved women and their children. Information regarding the evaluation of the BTC Pregnancy Outreach Program (CPNP) is reported in section 3a and findings regarding Breaking the Cycle (CAPC) are presented in section 3b. The mandatory tools required through the CAPC Regional Evaluation are reported as part of the evaluation of BTC in section 3b.

The results of the evaluation of the BTC Pregnancy Outreach Program (CPNP) confirm that BTC is reaching and engaging this high risk and marginalized population of homeless, pregnant and substance-using women. The data also confirm that, compared to CPNP participants nationally and regionally, the women engaged through the BTC Pregnancy Outreach Program report significantly higher rates of alcohol and tobacco use, significantly higher rates of poverty that

affected food security and nutrition, significantly lower levels of educational attainment, and significantly higher rates of social isolation. Clinical outcome data confirm the success of the BTC Pregnancy Outreach Program in: 1) engaging women earlier in pregnancy, which has been related in previous BTC evaluations with enhanced perinatal outcomes; and 2) decreased isolation through positive referrals to health and social services. Further, engagement in BTC during pregnancy was significantly related to higher rates of completion of treatment/intervention plans (including accessing addiction treatment, prenatal care and securing housing). Finally, women who entered BTC in pregnancy were significantly more likely to have custody of their children at discharge from BTC.

Evaluation of the Breaking the Cycle program confirms the high risk factors that characterize the mothers and children who attend BTC, including: high rates of maternal maltreatment and trauma (sexual, physical and emotional abuse); high rates of maternal psychological symptoms including depression, suicide attempts, eating disorders; significant history of substance use in family of origin and in adult relationships; lengthy history of substance use; compromised health status; low levels of educational attainment; high rates of domestic violence; high rates of obstetrical losses, and loss of custody of children. These factors compromise the health and well-being of mothers, and pose risks to the health and development of children. The children at BTC are exposed to multiple risk factors both prenatally -- including exposure to alcohol and other substances, and in the postnatal environment (including high rates of separations from their mothers). These risk factors place BTC children at risk for health and neurodevelopmental problems, for child maltreatment, and for disorders of attachment and regulation. Clinical outcome data indicated that: 1) BTC children are functioning within the normal range of development, and that they are developing along a trajectory that is consistent with their age over time; 2) there was a significant decrease in parenting stress for BTC mothers over time, and the slope of change is significantly more profound for those mothers who were engaged during pregnancy (highlighting the enduring impacts of early engagement through the BTC Pregnancy Outreach Program); 3) there was significant improvement on mothers' sense of parenting competence; 4) there were significant increases on measures of postnatal attachment and quality of attachment. BTC mothers consistently reported increased knowledge and confidence regarding services in the community at discharge, as well as a significant increase in social support from family and friends.

Part 4 of this report describes the significant knowledge exchange activities undertaken, including training over 15,000 individuals regionally, nationally and internationally, publications, and resource development. In 2004, BTC was recognized by the United Nations Office on Drugs and Crime in its publication ***Substance abuse treatment and care for women: Case studies and lessons learned*** (United Nations Office on Drugs and Crime 2004). BTC was highlighted as the Canadian case study illustrating best practices.

Part 5 outlines future directions for BTC. Program development initiatives include domestic violence programming, support for employment, and early interventions for children with FASD in foster care. Knowledge exchange activities will continue through the publication of a collection of papers (funded through Canada's Drug Strategy) that will provide practical practice guidance.

With the support of the Canadian Institutes of Health Research, evaluation of BTC will build on its 10 year history of evaluation with a study that will include a comparison with a traditional substance-use treatment program to provide insights into the outcomes and underlying processes of the BTC approach with a focus on parenting and child development.

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Part 1: Introduction

Since 1995, Breaking the Cycle has developed a unique Canadian response to the important public health issue of pregnancy, alcohol and substance use, child health and development, and Fetal Alcohol Spectrum Disorder.

In 1995 Breaking the Cycle was launched to address the needs of:

1. Women who are pregnant or mothers of young children, and who are also struggling with problems related to substance use or recovery issues; and
2. Infants and young children (0-6 years) whose physical, developmental and psychosocial health and well-being are at risk - prenatally, at birth, in infancy, in early childhood - because of their prenatal exposure to drugs, or their exposure to postnatal environments in which substances are used.

Funded through the Public Health Agency of Canada's Community Action Program for Children (CAPC), Breaking the Cycle has maintained a commitment to the **CAPC Guiding Principles**:

Children first: Focusing on outcomes

Breaking the Cycle (BTC) has focused on outcomes for children. Since 1995 BTC has been subject to uninterrupted external evaluation, and to numerous research initiatives. Two prior evaluation documents have been produced (Moore et al., 1998; Pepler et al., 2002) and have confirmed:

- Enhanced perinatal outcomes for infants of substance-involved mothers who are engaged in BTC earlier in pregnancy;
- Enhanced developmental outcomes of children who are involved, with their mothers, in a comprehensive program integrating a range of intensive services.

Part 3 of this report builds on previous findings and provides additional outcome data related to the health and developmental progress of alcohol- and substance-exposed children at BTC.

Strengthening and supporting families: Engaging and supporting the highest-risk families and children

Previous evaluations of BTC (Moore et al., 1998; Pepler et al., 2000) have reported the efficacy of a targeted, comprehensive and integrated maternal-child program model to engage high-risk substance-involved mothers, and substance-exposed children. All of the mothers participating at BTC are substance-involved, with high rates of co-existing health/mental health and socio-economic risk factors. These families, often marginalized from health and social services, have endorsed the efficacy of a specialized and targeted program designed to serve the complex and unique needs of substance-involved families.

Part 3 of this report builds on previous reports to describe the complex contexts of risk in which BTC families and children live, to confirm positive rates of engagement using a comprehensive maternal-child approach, and to describe positive outcomes related to substance use recovery, parenting, and maternal child interactions for the mothers served at BTC.

Equity and accessibility: Facilitating access to social determinants of health

Through the single-access model of care, BTC facilitates access to on-site health/medical, parenting, child development, diagnostic, and addiction treatment, and basic needs supports. Through a case management approach, BTC also promotes accessibility to other social determinants of health including housing and income stability, education, and social inclusion.

This report describes the development of new partnerships with the Ministry of Community Safety and Corrections as well as with Operation Springboard, both of which are aimed to facilitate access by BTC mothers to social determinants of health.

Community-based and partnership-based: Fostering community commitment and enhancing community capacity

Part 2 of this report describes the development of BTC, including the unique cross-sectoral model that has involved the development of non-traditional partnerships between adult- and child-serving agencies. The success of this partnership to leverage significant in-kind financial contributions is outlined.

Part 4 of this report summarizes knowledge exchange activities that have been undertaken by BTC since 1995 in order to enhance community capacity. BTC is a highly documented project, and has been the source of significant knowledge exchange activity regionally, nationally and internationally over the past ten years through training, consultation, publications and resource development. In 2004, BTC was described by the United Nations Office on Drugs and Crime in its publication ***Substance abuse treatment and care for women: Case studies and lessons learned*** (United Nations Office on Drugs and Crime 2004). BTC was highlighted as the Canadian case study illustrating best practices in the 2004 United Nations publication, available at http://www.unodc.org/pdf/report_2004-08-30_1.pdf

Flexibility: Flexible program innovations and developments have been responsive to participant and community needs, and these are described in Part 2 of this report.

BTC has participated in the development of policy related to pregnancy, substance use and FASD, including the *National Framework for Action to Reduce the Harms Associated with Alcohol and Other Drugs and Substances in Canada* and the *National Fetal Alcohol Spectrum Disorder Initiative*.

Health Goals for Canada

Over the past year the Public Health Agency of Canada completed a national consultation process to determine health goals for all Canadians. BTC engages the most at risk population of society – substance using pregnant women and their children – in order to promote health outcomes that are consistent with the Health Goals for Canada, including healthy development of children, safety and security in relationships and in community, social inclusion, and access to appropriate systems for health and social well-being. The evolution of BTC programs and services over the past ten years has been in response to the needs of program participants, while keeping an eye on expectations for the healthy growth of all Canadians.

Health Goals for Canada

Basic Needs (Social and Physical Environments)

Our children reach their full potential, growing up happy, healthy, confident and secure.

The air we breathe, the water we drink, the food we eat, and the places we live, work and play are safe and healthy – now and for generations to come.

Belonging and Engagement

Every person has dignity, a sense of belonging, and contributes to supportive families, friendships and diverse communities.

We keep learning throughout our lives through formal and informal education, relationships with others, and the land.

We participate in and influence the decisions that affect our personal and collective health and well-being.

Healthy Living

Every person receives the support and information they need to make healthy choices.

A System for Health

A strong system for health and social well-being responds to disparities in health status and offers timely, appropriate care.

BTC represents a successful model for promoting the Health Goals for Canada for this vulnerable population of women and children who are marginalized from healthy social and physical environments, who experience alienation in relationships and community, and who face barriers in accessing traditional health and social systems.

The following sections provide an overview of the impact of alcohol, tobacco, and illicit substances (crack cocaine, marijuana, opiates, methamphetamine and marijuana) on maternal, fetal and child health and development. Two primary concerns have motivated research examining effects of prenatal substance exposure: a) constitutional effects on children from the teratological effect of the substance; and b) environmental effects associated with parenting, substance use and related factors. Thus, prenatal substance exposure represents both a constitutional impact on the child, and a potential continuing disturbance of the caregiving context (Seifer et al., 2004). Because there are so many factors that potentially mitigate the impact, there is huge diversity in the individual expression of prenatal substance exposure.¹

1.1 Substance Use During Pregnancy – Biologic Risk

1.1.2 Alcohol

The most recent published data on the prevalence of women's use of alcohol during pregnancy indicates that approximately 14% of mothers report drinking alcohol (any amount) during pregnancy (McCourt et al., 2005). Some women are unable to decrease or stop their alcohol use because it is linked to a range of complex and inter-related factors in their lives. Pregnant women's use of alcohol cannot be separated from other issues in their lives, such as violence, trauma history, isolation and socioeconomic status. Their alcohol use is often not easily isolated from other potentially harmful behaviours, including tobacco and other drug use. In general, problematic substance use for women is linked to a range of biological, genetic, psychological, social, cultural, relational, environmental, economic and spiritual factors. These factors describe the circumstances that not only bring some women to alcohol use, but which also make it difficult for them to stop or decrease their use during pregnancy.

Women who drink during pregnancy are at risk of having a child with a Fetal Alcohol Spectrum Disorder (FASD), including its most visible presentation, Fetal Alcohol Syndrome (FAS). Patterns of heavy per-occasion drinking (5 or more drinks per occasion) and frequent drinking (7 or more drinks per week) by a woman during pregnancy are both associated with Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE). Although FAS is thought to be the result of heavy maternal alcohol use, the threshold of exposure which results in fetal damage has not yet been determined (Passaro and Little, 1997).

In the pregnant woman, alcohol crosses the placenta into the circulatory system of the fetus. Because of the baby's small size and underdeveloped liver and enzyme system, it cannot eliminate the alcohol at the same rate as the mother can, so the fetus is exposed to alcohol for longer periods than the drinking mother. Alcohol is a toxic agent that can damage cells in the developing organs. Damage to the cells causes malformation to growing organs, and all fetal organs can be adversely affected. The fetus is forced to divert its energy to metabolize the alcohol instead of using energy to grow healthy cells and tissues. While the alcohol is in the unborn baby's system, it may cause damage. The damage caused by fetal alcohol exposure is permanent. Because fetal brain development occurs throughout pregnancy, drinking at any time during pregnancy can damage the brain. Alcohol affects neural organization in the cortex, and thus may impair reasoning and problem-solving later in life.

¹ A significant complication in researching the prenatal effect of substance use is that pregnant women often use more than one substance.

Estimating the number of children born in Canada with FASD and FAS is difficult, due to inadequate diagnostic availability, and fledgling surveillance initiatives. It is estimated that 9 babies in every 1000 born in Canada have FASD (Health Canada 2004), with higher rates reported among certain populations such as Aboriginal Canadians and other socially disadvantaged groups, including inner-city populations.²

FASD is the leading cause of developmental disability among Canadian children. It is a life-long, irreversible disability, with estimated costs associated with supporting affected individuals at about \$1.5 million per person with FASD (Health Canada, 2004).

Fetal Alcohol Spectrum Disorder (FASD) is an umbrella term used to describe the spectrum of disabilities (and diagnoses) associated with prenatal exposure to alcohol. FASD is not itself a diagnostic term; rather four diagnoses are subsumed under the FASD umbrella. While all of the diagnoses encompassed under FASD are caused by prenatal exposure to alcohol, effects vary widely and are influenced by the pattern of alcohol exposure (i.e., threshold amounts of alcohol in the blood, as well as the timing of the exposure), maternal health and nutrition, genetic susceptibility, the use of other substances, and a host of other biological and environmental variables that may have an impact in the prenatal and postnatal periods (Chudley et al., 2005; Institute of Medicine, 1996).

FAS is a medical diagnosis that refers to a set of alcohol-related disabilities associated with the use of alcohol during pregnancy and is characterized by:

- *Prenatal and/or postnatal growth restriction:* This may be indicated by characteristics such as low birth weight; decelerating weight over time, not due to malnutrition; disproportionate low weight to height; height and weight below the 10th percentile when corrected for gestational age.
- *Characteristic facial features:* These may include shortened eye slits, flattened mid-face, a flattened midline ridge between nose and lip, thin upper lip, and other features. A child with FAS may have some or all of these features, and these features may fade or change as the child grows.
- *Central nervous system involvement:* The most important effect of alcohol on the fetus is the permanent damage to the brain and central nervous system. This may include small brain and head circumference; brain malformations; developmental delay; intellectual impairment; behavioural disorders; learning disabilities; attention deficit disorder and hyperactivity.

Partial FAS (pFAS), Alcohol-Related Birth Defects (ARBD) and Alcohol-Related Neurodevelopmental Disorder (ARND) are additional diagnostic categories used to describe individuals who have some, but not all, of the characteristics of FAS, and for whom there is a confirmed history of maternal alcohol exposure (Chudley et al., 2005; Institute of Medicine, 1996).

Since the impact of FASD is permanent and irreversible, it is extremely important to focus efforts on prevention by providing care to pregnant women using alcohol through comprehensive models that go beyond a focus on alcohol use alone (Poole, 2004; Kyskan & Moore, 2005). It is equally important, however, to provide early diagnosis and intervention for those who are affected in order to prevent common secondary disabilities such as mental health problems, disrupted school experience, inappropriate sexual behaviour, alcohol and drug problems, trouble with the law

² Comparisons of rates of FASD in sub-populations as compared to the general population should be interpreted with caution; research in this area has overwhelmingly focused on the examination of sub-populations.

(Moore & Green, 2004), problems with employment and problems with parenting (Streissguth et al., 1996; Centres for Disease Control, 2005).

1.1.3 Tobacco

Although the prevalence of smoking in the general population is declining, the rate of diminution is slowest among women of childbearing age. Results from the National Longitudinal Study on Children and Youth (NLSCY) indicate 23.3% of Canadian women smoke during pregnancy. Of these women, 84% smoke throughout pregnancy. US studies confirm that approximately 12.3% of all mothers report cigarette smoking while pregnant (Matthews, 2001; Fried, 2002).

Cigarette smoke contains a complex mixture of chemicals with approximately 4000 compounds including carbon monoxide, and cyanide that may also affect the fetus. Maternal smoking during pregnancy produces adverse effects for the fetus through several pathways. First, cigarette smoke interferes with normal placental function. As metabolites of cigarette smoke pass through the placenta from mother to fetus, they act as vasoconstrictors to reduce uterine blood flow. The fetus is deprived of nutrients and oxygen, resulting in episodic fetal hypoxia-ischemia and malnutrition. This is the basis for fetal intrauterine growth restriction, resulting in lower birthweight (Lester et al., 2001, Cornelius, 2003). Cigarette smoking during pregnancy has consistently been associated with lower birth weight in newborns: the greater the number of cigarettes smoked, the lower the birth weight. In addition, many studies have documented the relationship between smoking during pregnancy and decreased length and head circumference in newborns. Prenatal nicotine exposure has been linked to sudden infant death syndrome as well as short and longer-term behavioural and cognitive problems, including effects on IQ (Lester et al., 2004).

Second, the nicotine in cigarette smoke acts as a neuroteratogen that interferes with fetal development, specifically the developing nervous system. There is strong and consistent evidence that confirms a relationship between prenatal exposure to tobacco and behavioural and temperamental difficulties among offspring, including externalizing, aggression, conduct disorder, hyperactivity and poorer social adjustment (Brook et al., 2000; Wakcschlag, 2002; Law et al., 2003; Cornelius, 2003; Wakcschlag et al., 2006). Evidence suggests a relationship between prenatal exposure to tobacco smoke and compromised cognitive abilities and executive functioning in verbal intelligence, verbal learning and memory and auditory processing (Kronstadt, 1991; Fried et al., 1997; Fried et al., 1998; Cornelius et al., 2001; Olds, 1997). Research evidence from the Hospital for Sick Children indicates that a fetus can also be affected when non-smoking mothers breathe “second-hand” tobacco smoke (The Globe and Mail, February 23, 1994).

1.1.4 Cocaine/Crack

Cocaine is a vasoconstricting central nervous system stimulant and, like the other substances, it passes through the placenta. Cocaine use is a marker variable for a lifestyle that includes polydrug use, and alcohol is the drug most commonly used with cocaine (Berger et al., 1990). Cocaine use increases maternal blood flow, respiration and heart rate; decreases appetite; produces contractions of the uterus; and decreases the flow of blood and nutrient transfer through the placenta (Gustavsson, 1992). Prenatal cocaine use is associated with increased risk of spontaneous abortions, premature labour, *abruptio placentae*, *placenta previa*, preeclampsia, lower birth weight, and intrauterine growth retardation.

Neonatal complications include irritability, tremors, hyperactivity, abnormal feeding and sleeping patterns. Seizures and cerebral infarction have been documented in neonates of heavy users (PRIMA 2004).

The most consistent outcome of prenatal cocaine exposure reported in the human literature has been fetal growth deficiencies (Bauer 1999; Lester et al., 2000; Lutiger et al., 1991), some of which have persisted beyond infancy (Griffith et al., 1994; Nulman et al., 1994). Prenatal cocaine exposure has some lasting effects on arousal and affect regulation in novel or stressful situations (Coles et al., 1999; Mayes et al., 1996). Cocaine-exposed infants have increased behavioural reactivity and lability in response to novel stimulation and stress (Mayes et al., 1996; Mayes et al., 1998; Ramsay et al., 1996; Richardson, 1998).

Although there is considerable consensus in the field regarding the impact of prenatal cocaine exposure on infant growth outcomes (Bateman et al., 2000; Coles et al., 1992; Kuhn et al., 2000), the results of other aspects of development have been mixed and somewhat inconsistent (Lester et al., 1997). Studies also suggest a pattern of small deficits in intelligence and moderate deficits in language (Lester et al., 1998). Further, cocaine-exposed children at 6 years show deficits in academic skills including poor sustained attention, more disorganization, and less abstract thinking (Delaney-Black et al., 1998; Leech et al., 1999; Richardson et al., 1996).

While early reports of the effects of cocaine exposure may have been exaggerated (Lester et al., 1998) there remain small effects associated with exposure, which when extrapolated to large populations may have substantial public health implications (Seifer et al., 2004).

Primary among other risk factors is the use of substances other than cocaine. Maternal cocaine use during pregnancy is associated with use of other substances such as alcohol, nicotine and marijuana. Alcohol and nicotine in particular are known to have significant teratological influences on regulatory processes (Gingras et al., 1998). Thus the impact of maternal cocaine use can only be studied in the context of polydrug exposure and by measuring use of other substances in addition to cocaine.

Apart from other substances, two primary risk factors associated with cocaine use are negative maternal functioning (e.g. higher psychological distress) and an inadequate caregiving environment. The quality of the caregiving environment is a critical predictor of child outcomes and is likely to be influenced by maternal substance use (Eiden et al., 2002). In fact, cocaine is a marker variable for a lifestyle that includes caregiving environmental factors that have been shown to affect child development and well-being without drug exposure (Lester et al., 2000).

1.1.5. Methamphetamine

Prenatal exposure to methamphetamine may result in prenatal complications including elevated rates of premature delivery, congenital deformities, and altered neonatal behavioural patterns (NIDA 2002). Methamphetamine use during pregnancy and while mothering may also be a marker for concurrent health and psychological problems (Holman et al., 2004). Children living in homes where methamphetamine is manufactured may be exposed to toxic chemicals and fumes by absorption, inhalation or ingestion. Methamphetamine can be dangerous if ingested by children and may result in seizures, cardiac arrhythmia and death (Vancouver Coastal Health 2005).

1.1.6 Marijuana, Hashish, Hashish Oil

There is no known safe limit for use of marijuana, hashish or hashish oil in pregnancy. While studies of effects of marijuana use in pregnancy have many confounders (including the concurrent use of tobacco and alcohol), obstetrical and developmental effects have been identified. Women using marijuana in pregnancy are at higher risk for premature delivery. Neurobehavioural effects include increased tremors, exaggerated startle response and persistent jitteriness and decreased total quiet sleep at 1 month of age. Developmental impacts include sleep disturbances at 3 years of age, increased hyperactivity, inattention and impulsivity at 10 years of age, and increased delinquency (PRIMA Project 2004). Marijuana is transferred into breastmilk, and may cause lethargy, poor feeding and neurobehavioural effects in infants. Mothers are advised to avoid the use of marijuana while breastfeeding (especially if smoking >1 joint per day) (PRIMA Project 2004).

1.1.7 Opiates

Heroin, methadone, morphine, oxycodone, buprenorphine and codeine are opiates. Women taking moderate doses of prescribed opiates with no evidence of dependence should continue their medication. Women who are physically dependent on opioids should be treated with methadone maintenance therapy in order to improve maternal health status, to promote compliance with prenatal care, and to reduce fetal/neonatal complications (PRIMA 2004). Risks of acute withdrawal from opiates during pregnancy include risk of spontaneous abortion, preterm labour, fetal hypoxia and fetal death.

Opiate drugs easily cross the placenta and have effects on the fetus that can be clearly observed during the neonatal period. An opiate neonatal abstinence or withdrawal syndrome (NAS) has been defined, and is estimated to occur in 50% to 94% of infants prenatally exposed to opiates (American Academy of Pediatrics, 1998). Withdrawal symptoms can start at birth or as late as 7-10 days after birth, and usually last from 2-8 weeks. Most infants in withdrawal require drug therapy (Zuckerman, 1991). Among the most frequently observed medical signs of neonatal abstinence syndrome are: poor sleeping, hyperactive reflexes, convulsions, poor feeding, regurgitation, diarrhea, dehydration, yawning, sneezing, nasal stuffiness, sweating, skin mottling, fever, rapid respiration and excoriation of skin (Hans and Jeremy, 2001).

Methadone, given to heroin-addicted pregnant women in registered treatment programs, contributed to better pregnancy outcomes, perhaps due to the medical management and lifestyle changes made by women in treatment (Constant, 1991).

Maternal use of opiate drugs is related to lower birth weight and to reduced head circumference. There have been no reports of serious developmental problems attributable solely to prenatal opiate exposure in studies with infant samples (Hans and Jeremy, 2001). Studies examining longer-term effects of prenatal opiate use have shown that the quality of prenatal care and postnatal home environment are more highly associated with developmental outcome than prenatal opiate exposure. Unfortunately, ongoing non-medical use of opiates by mothers results in sub-optimal prenatal care and creates high-risk postnatal caretaking environments for infants and children.

2.1 Substance Use in the Caregiving Context - Psychosocial Risk

The biologic vulnerability created by exposure to substances *in utero* can be highly modified or exacerbated by social factors. It is important to study the psychological and social influences that contribute to a woman's taking drugs, as well as the nature of the family and community contexts in which a child is being raised, to understand the factors that determine developmental outcomes of prenatally substance-exposed infants. Infants exposed to substances prenatally often continue to live in environments with continued caregiver substance use, foster care placement, domestic violence, conflictual relationships with parents, and poverty, as well as maternal co-morbid psychological problems including depression, anxiety, posttraumatic stress disorder, eating disorders, and suicidality (Brady & Ashley 2005). Continued postnatal substance use is cumulative on both parental abilities and infant development (Mayes et al., 2003). All of these factors have been associated with both compromised parenting capacities, increased risk for child maltreatment and insecure attachment relationships (Seifer et al., 2004).

2.1.1 Substance Use and Child Maltreatment

A strong connection between substance abuse and child maltreatment has been confirmed in both child welfare populations and prospective community-based samples (Famularo et al., 1992; Kelleher et al., 1994; Reid et al., 1999; Ammerman et al., 1999; Chaffin, et al., 1996). Children whose parents abuse drugs and/or alcohol are almost three times likelier to be abused and more than four times likelier to be neglected than children whose parents do not use substances. Most cases of abuse and neglect by substance-using parents involve children under five (Reid et al., 1999), and several studies indicate that children exposed prenatally to substances are at increased risk for child maltreatment after birth (Kelly, 2002).

The impediment drugs present to appropriate care of children may be particularly apparent in families whose economic status cannot provide any buffer against harm, either in the form of ready substitute care or sufficient income to pay for drugs readily. Without such safeguards, drug use demands a lifestyle that places children at particular risk (Pawl 1992).

Substance-exposed children are more likely to experience separations from their mothers and subsequent placement into child welfare services due to the children's increased risk of disorganization, abuse, or neglect by their parents (McNichol & Tash, 2001).

An association found between a past (but not current) history of substance use and child abuse potential in both parents (Ammerman et al., 1999; Milner, 1995) belies a common belief that if substance using parents become "clean and sober", the risk of child maltreatment ceases.

2.1.2 Substance Use and Attachment

Many life experiences of a mother who abuses substances will also influence the mother-child relationship even in the absence of drug use (Pawl, 1992). When women enter motherhood with unhealed traumas and emotional wounds, their injuries often resurface when they relate to their own children. Mothers who use substances need help not only with their substance use, but also to understand the effects of their past relationships, both negative and positive, on their interactions and relationship with their child. (Mejta & Lavin, 1996.)

Attachment develops out of patterns of early interactions between the infant and his/her primary caregiver. As the attachment relationship develops over the first 6 months of life, it serves four main functions: 1) providing a sense of security; 2) regulating affect and arousal; 3) promoting the expression of feelings and communication; and 4) serving as a base for exploration.

A sensitive, responsive caregiver is fundamental to the development of a secure, as opposed to an insecure, attachment bond during the early years of life. Consistency, sensitivity and contingent responsiveness on the part of the primary caregivers are essential to the baby's psychological development. When the attachment relationship is compromised by the caregiver's inconsistency, insensitivity, lack of responsiveness, negativism or rejection of the baby, the baby's psychological development is at risk.

Three major factors affect the caregiver's capacity for responsiveness:

- (1) the caregiver's internal working models of caregiving, assumed to be derived from her own early experiences of being cared for;
- (2) parental risk factors such as substance use or mental illness;
- (3) whether the caregiver is receiving outside support from other adults (Davies, 1999).

Unresolved loss and trauma in mothers has been shown to be associated with disorganized attachment in children, and there is stability of attachment across generations (Main & Hesse, 1990). There is evidence that disorganized attachment is a symptom of the disintegrative effects that multiple interacting risk factors can have on families. Families characterized by poverty, parental psychiatric disturbance, parental substance abuse, and a history of abuse of the parent in childhood have much higher rates of disorganized attachment (Carlson et al., 1989).

The majority of children of substance-using women demonstrate a disorganized attachment type (Espinosa et al., 2001). This pattern of attachment is linked to a child's fear of the parent, uncertainty about how a parent will react, and a history of contradictory responses by the parent ranging from inviting closeness to angry rejection (Lyons-Ruth et al., 1987). Infants classified as disorganized lack a coherent/organized strategy for dealing with distress. Their dilemma is that their source of safety and comfort is also their source of fear and distress. Disorganized attachment is linked to poor child outcomes including difficulties managing affective responses, impulsivity, poor self-esteem, impaired empathy, vulnerability to stress and regulatory problems (Main & Hesse, 1990).

2.1.3 Substance Use and Regulation

The first task of the newborn infant is to learn to regulate himself in the face of internal and external stimulation so that he can engage the world of people and things in an active way. This development depends on both the child's capacities to control his own states and the mother's capacity to facilitate the child's ability to self-regulate. In early infancy, parents help the child maintain alertness and engage with the world for sustained periods. A sensitive caregiver is able to help the infant by modifying the environment and/or supplementing the child's own regulatory efforts by responding to cues from the infant's face, voice and body, and other behavioural and physiologic changes. This means that the exchange of subtle information between infant and parent is a critical component of the child's regulatory system. Chronic failure to repair regulatory errors may have long-term negative developmental and mental health consequences. If they have been exposed to substances prenatally, infants may require extraordinarily sensitive adaptations by their caregiving environment. Mothers who are using drugs, or mothers in early recovery, may have impaired ability to read and regulate their own behaviour, much less promote

their children's development toward self-regulation. Both the exposed newborn and the substance-involved mother are likely to be difficult regulatory partners.

Neurobehavioural research has demonstrated the importance of early regulation in the development of areas of the brain responsible for emotion regulation, arousal, appetite control and sleep. The quality of the early environment sets patterns for response to stress that become embedded in our physiological and neurological systems (Bradley 2000). Animal and human studies show that adults who were poorly nurtured in early life tend to retain sustained levels of stress hormones long after the cause of arousal has gone. Initial response to stress releases chemicals that heighten infants' sensitivity to sensory stimulation and improve memory. Sustained or chronic stress has the opposite effect; it reduces the capacity to process new sensory stimulation and has a negative impact on memory. Unresolved and chronic stress in young children affects brain development and can result in a chronic state of hyperarousal and reactions such as anxiety, depression, withdrawal, helplessness and dissociation (Perry, 2001). Thus repeated stress during critical periods in early life reduces the ability to moderate response to stress later in life (Bradley, 2000).

It has been suggested that insecure attachment (especially the disorganized pattern) predisposes the use of external regulators of affect, in particular psychoactive drugs, alcohol, sexual behaviour and eating (Maunder & Hunter, 2003). This suggests a possible mechanism for transmission of substance use stemming from dysregulation in early parenting relationships.

3.1 Program Implications

Reducing the impact on individuals, families and society of prenatal and postnatal exposure to alcohol, tobacco and other substances has prompted the development of specialized programs for pregnant women and mothers with substance use problems, and their children. Participation and engagement with health and social services have been identified as salient protective factors for substance-involved mothers and infants (Jeremy et al., 1984; Lief, 1985). BTC was launched in 1995 to address some of the barriers to service for substance-involved mothers and their children, and to promote access to services for this vulnerable population.

Although pregnancy has often been described as a “window of opportunity” for women to decrease or cease their substance use (Daley et al., 1998; Klee et al., 2002), pregnant women who use substances do not typically seek or access addiction treatment during pregnancy. Barriers to effective care for pregnant substance-using women have been extensively described, and include: stigmatizing, judgemental and blaming public attitudes towards pregnant substance users (Greaves, et al., 2002); negative attitudes and treatment of pregnant substance users by service providers (Finkelstein, 1993; National Institute on Drug Abuse, 1993; Harrington, et al., 1999; Tait, 2000); women’s fear of criminal prosecution, mandatory treatment, and removal of custody of their children (Chavkin, 1990; Tait, 2000; Poole et al., 2001; Lester, 2004; Brady et al., 2005); lack of gender-specific programs designed to address both the complexity of needs and experiences of pregnant substance using women as well as the needs and experiences of their child(ren) together (Jessup et al., 2003; Haller et al., 2004; Lester, 2004). Pregnant women using substances are marginalized from health and social supports by psychological, structural and systemic barriers that jeopardize their health and the health of the foetus. Pregnancy outreach programs are a powerful support mechanism that provide opportunities for meaningful interactions with caring service providers and other women in similar situations (Tait, 2000; Fiocchi & Kingree, 2001).

The efficacy of a comprehensive, integrated model of service delivered through a single-access point for substance-using pregnant women and mothers, and their children has been confirmed (McMurtrie et al., 1999; Roberts et al., 2000; Health Canada 2003; United Nations Office on Drugs and Crime 2004; Brady et al., 2005). BTC uses a maternal-child relationship-based model to deliver a range of services to serve substance-using pregnant and/or parenting women and their children through a single-access model which offers individual and group addiction treatment, parenting programmes, child care, child developmental services (including screening, assessment and intervention), health/medical services (including paediatric clinic and addiction medicine), mental health counselling, case management/service coordination; parent-infant counselling, home visitation, and support around instrumental needs (including food, clothing and transportation).

Part 2: Program Development

2.1 Program Background

The initial impetus for Breaking the Cycle grew out of a 1992 conference organized by the Infant Mental Health Promotion Project (IMP) and Metro Toronto Addiction Treatment Services Committee (MTATSC). The conference, *Addressing Addiction Together: Focus on Infants, Parents, Professionals -- The Foundation for Collaboration*, noted the urgent need to develop an integrated early identification and prevention program for pregnant women and substance-involved mothers with young children requiring partnerships among previously fragmented service providers.

During 1993 and 1994, four agencies collaborated in designing a cross-sectoral initiative, drawing upon their respective expertise (addiction treatment, child care and early childhood intervention, child welfare and health care). In May 1994, with funding provided by Health Canada's Community Action Program for Children, a consultant was contracted to undertake community consultations and to review literature on model programs elsewhere.

In April 1995, BTC was launched by four lead partners: Mothercraft, the Jean Tweed Centre; Children's Aid Society of Metropolitan Toronto; and Motherisk Program, Hospital for Sick Children. Subsequent to the opening of BTC, the City of Toronto's Department of Public Health was added as a fifth partner. The Catholic Children's Aid Society of Metropolitan Toronto became the sixth partner in 1996; and in 2002, St. Joseph's Health Centre joined as the seventh partner.

BTC was designed to address the needs of:

1. Women who are pregnant or mothers of young children, and who are also struggling with problems related to substance abuse or recovery issues; *and*
2. Their young children (prenatal - 6 years) whose physical, developmental and psychosocial health and well-being are at risk -- prenatally, at birth, in infancy, in early childhood -- because of their prenatal exposure to drugs, or their exposure to postnatal environments in which substances are used.

2.1.1 BTC Partnership

A service agreement (Appendix 1) outlines the governance structure of BTC, including the roles and responsibilities of the BTC partners.

BTC Sponsoring Organization: As the sponsoring organization of BTC, Mothercraft is the financial administration agent, personnel administration agent (including the legal employer of all BTC staff), and owner and manager of all assets of BTC.

BTC Management Committee: As BTC managing partners, Mothercraft and the Jean Tweed Centre jointly manage BTC in accordance with the goals and objectives of BTC; the terms and conditions of the current contribution agreement with Health Canada; and the annual operating budget and plans for BTC.

BTC Steering Committee: The BTC Steering Committee is comprised of a senior representative of each of the seven partner organizations. Each partner organization makes a commitment to:

- Contribute staff who deliver services at BTC and/or funding and/or consultation;
- Supervise their staff;
- Ensure that an agency representative participates in bi-weekly clinical team meetings;
- Act as the liaison for communications within their agency;

The BTC Steering Committee 1) discusses and develops program operating policy for BTC; 2) provides input to program management issues as necessary; 3) receives regular reports on operations; 4) receives regular input from the Community Advisory Panel.

BTC Clinical Team: Each of the partner agencies provides a senior clinical consultant who delivers consultation services to BTC staff through the BTC Clinical Team. Clinical team meetings are held on a bi-weekly basis, at which time BTC staff members bring case or clinical questions for review and input by the team. BTC counsellors working with the family are responsible for implementing recommendations of the BTC Clinical Team, thereby ensuring that treatment plans represent the integrated input of the agencies and sectors represented. Clinical team meetings not only provide the forum for cross-sectoral and interdisciplinary planning, but they have also become an important forum for staff training and development – not only for BTC staff but also for clinical consultants.

Direct Service: Many of the partner agencies also deliver services on-site at BTC (See Table 1 below).

**Table 1: BTC PROGRAMS AND SERVICES
2005**

PROGRAMS & SERVICES	DELIVERED by:
BTC PREGNANCY OUTREACH PROGRAM	Breaking the Cycle, St. Joseph's Health Centre (TCUP) & Women's Own Withdrawal Management Centre
ADDICTIONS Relapse Prevention Group Recovery Group Life Skills Group Individual Counselling	Breaking the Cycle & Mothercraft Breaking the Cycle & Mothercraft Breaking the Cycle & Mothercraft Breaking the Cycle & Mothercraft
PARENTING New Moms' Support Group Nobody's Perfect Parenting Program Cooking Healthy Together Parent-Child Mother Goose Program Parent- Child Counselling Hanan "You Make the Difference" Group Mothercraft "Learning Through Play" Group Child Welfare Access Visits	Toronto Public Health & Mothercraft Toronto Public Health & Mothercraft Toronto Public Health, Mothercraft & BTC Breaking the Cycle Breaking the Cycle Breaking the Cycle Breaking the Cycle Children's Aid Society of Toronto//Catholic Children's Aid Society of Toronto & BTC
MENTAL HEALTH COUNSELLING	Mothercraft
CHILD CARE	Breaking the Cycle & Mothercraft
DEVELOPMENTAL CLINIC Developmental Screening and Assessment Early Intervention through Homes Visitation	Mothercraft & Breaking the Cycle Mothercraft
FASD DIAGNOSTIC CLINIC Individual Pre-Postnatal Counselling	Motherisk, Mothercraft, BTC
HEALTH/MEDICAL SERVICES Individual Pre-Postnatal Services	Motherisk, Toronto Public Health, BTC, St. Joseph's Health Centre (TCUP)
BASIC NEEDS SUPPORT Clothing Exchange Daily Breakfast & Lunch Transportation	Breaking the Cycle Second Harvest Breaking the Cycle
PROBATION AND PAROLE SERVICES	Ministry of Community Safety and Corrections

Leveraging PHAC Funding to Promote Community Investment

It is estimated that the core funding from PHAC (\$352,000 from CAPC and \$57,500 from CPNP) leverages an additional \$450,000 of in-kind contributions to the Breaking the Cycle as described below:

Mothercraft	Program Director (70%) Manager, Clinical Services (Psychologist) ▪ FASD Diagnostic Team ▪ Developmental Assessments ▪ Trauma Counselling Mothercraft Parent-Infant Program (4 FTE) ▪ Home Visitation/Early Intervention ▪ Developmental Screening ▪ Group Co-facilitation Financial Management Human Resource Management Sponsor Organization Member – Management Team Member – Steering Committee Member – Clinical Team
Jean Tweed Centre	Member – Management Team Member – Steering Committee Member – Clinical Team
Motherisk	Dr. Koren (1/2 day per week) Dr. Massoud (1/2 day per week) Management: FASD Diagnostic Clinic Member – Steering Committee
St. Joseph's Health Centre	Facility/Group Room – BTC Satellite Group Facilitated Access – TCUP Program Member – Steering Committee
Toronto Public Health	Co-facilitator – New Mom's Support Group (1/2 day per week) Co-facilitator – Cooking Healthy Together (1/2 day per week) Member – Steering Committee Member – Clinical Team
Children's Aid Society of Toronto	Member – Steering Committee Member – Clinical Team
Catholic Children's Aid Society	Member – Steering Committee Member – Clinical Team

2.1.2. Program Model

Breaking the Cycle was launched in 1995, with the belief that “there is a relationship between the improvement of the system and the improvement of the individuals in that system” (Thurman et al., 1992, p. 37). BTC offered the opportunity for existing services to be reorganized and delivered in an improved manner, recognizing that services should be coordinated so that agencies adapt to families rather than families having to adapt to multiple agencies. The goals were to address existing service system problems such as: fragmented services for substance-using pregnant women or mothers, and their young children; multiple intake experiences; poor coordination of services, especially between the adult treatment sectors and the children’s service sector; lack of consistency; and multiple locations for service access. BTC was a response to the fragmentation of services that existed for women and children affected by substance use. The partners of BTC designed a service delivery model around six key features and principles:

1. **A collaborative, community-based response.** Recognizing that there is no single agency that can address the complex needs and situations of substance-involved women and mothers, and substance-exposed children, formal and often non-traditional partnerships are required, especially between child-focused and adult-focused sectors.
2. **A comprehensive, integrated cross-sectoral system response.** Recognizing that issues of substance use, mothering, child care, health, housing, income and safety are often inextricably intertwined for substance-involved mothers, addressing these issues through an integrated model reflects the reality of the lives of substance-involved mothers and reduces fragmentation.
3. **Prevention through early identification.** Recognizing the themes of isolation and social exclusion in the lives of substance-involved mothers and children, creating programs and services that provide opportunities for pregnant women to access services early in their pregnancies in order to promote optimal maternal, foetal and child outcomes; and to identify children who may require early interventions to promote development and well-being.
4. **Improved parenting skills and prevention of maltreatment.** Recognizing that maternal substance use problems are often related to early childhood and adult relationships that involve trauma and maltreatment. The intergenerational transmission of relationship models, including parenting relationships, is reflected in approaches that intervene as early as possible in the mother-infant relationship in order to promote parenting skills, knowledge and confidence and, most importantly, to provide opportunities for establishing strong, healthy relationship patterns.
5. **"Single access" and "one-stop" model, with pregnancy outreach and home visitation components.** Recognizing the importance of a single-access service to reduce geographic barriers as well as fragmentation of services.
6. **Rigorous evaluation of this service delivery innovation.** Recognizing the importance of evaluation for program development and evolution.

2.1.3. Values and Philosophy

BTC is committed to the provision of services reflecting the following values:

- Programs and services must be offered in an environment of supportive, encouraging, respectful and non-judgmental regard of all individuals regardless of race, gender, sexual orientation, or religious beliefs.
- All parents have the desire for their children to grow and develop to their full potential.
- All children have the right to have the opportunity to develop into healthy, happy and productive individuals.
- Many children do not have this opportunity for a variety of reasons. These include poverty, parental inexperience and lack of knowledge, emotional or developmental vulnerabilities of the mother, maternal substance use, and maternal isolation.
- The most critical environmental contributor to infant development is the nature and quality of the mother-infant relationship.
- Interventions and supports can enhance parenting skills and developmental gains of 'at-risk' infants if the interventions focus on supporting and strengthening the mother-infant attachment relationship and supporting healthy family functioning.
- Intervention is most effective when it occurs at the earliest possible opportunity in the development of the mother-infant relationship.
- Maternal nurturing styles and responses to infants derive from the mother's past history and nurturing experience, the stressors and supports in her current life situation, and the mother's response to the individual characteristics of her infant.
- Interventions and supports must take a holistic approach which is sensitive to the complexity and diversity of women's lives, particularly with respect to the impact of trauma such as childhood abuse, adult violence, and violence in intimate relationships.
- Services must be offered in a flexible, responsive manner addressing each woman and child's individual needs and circumstances.
- Woman-centred and child services must protect and respect the integrity of the woman's family as she defines it and acknowledge the impact of significant others in the woman's life.
- By fostering an enhanced sense of self, and the attainment of skills and resources, women will assume mastery of their lives.
- A culturally/racially sensitive, inviting, warm, accessible and non-threatening environment enhances programme effectiveness.
- A commitment to supporting and nurturing the emotional well-being of staff, volunteers and students is reflected through opportunities for training, supervision, and consultation.

2.1.4. Theoretical Frameworks

Harm Reduction: Harm reduction is a public health alternative to the moral, criminal and disease models of drug use and addiction, and refers to interventions that seek to reduce harms associated with substance use for individuals, families and communities. Although it recognizes abstinence as an ideal outcome, it accepts alternatives that reduce harm (Marlatt 1988). Implicit in this approach is a shift away from stigma, guilt, confrontation and shame, towards an empowering and strengths-based approach. A respectful, non-judgmental approach accommodates goals of reduced use rather than immediate abstinence. Use of this approach is critical to engaging pregnant women or mothers in treatment, to addressing their shame and guilt around substance use, and to understanding women's use in the context of other complex and interrelated factors in their lives (such as poverty, trauma, homelessness, social isolation, and mental health problems). Use of a harm reduction approach is consistent with Health Canada's best practice statements on successful approaches in preventing FASD and the effects of other substance use which indicate that: "... services employing a respectful, flexible, culturally appropriate and women-centred approach that is open to intermediary harm reduction goals, based on client circumstances, are effective in engaging and retaining women in supportive programming and in improving the quality of their lives" (Roberts et al., 2000, pg.88).

In the integrated maternal-child approach implemented at BTC, harm reduction includes attention to the prevention or remedying the harms of maternal substance use experienced by children (Toronto Drug Strategy, 2005). This includes careful assessment of the impact of substance use on maternal functioning and mothering behaviours, on the individual needs of the infant or child, and on the mother's access to supportive resources, relationships and environments that foster the growth of both the mother and child in the context of safety, health and well-being.

Relational Theory

Relational-cultural theory suggests that growth-fostering relationships are a central human necessity and disconnections are the source of psychological problems. It proposes that women's substance use problems develop within the context of relationships, and that these problems are maintained and resolved within the context of relationships. It places women's substance use within a larger social-cultural, political and economic context, and attends to larger systems changes, including reduction of service fragmentation and access issues as part of the solution. Relational theory is grounded in women's experiences and listening to women's "voices".

Attachment Theory

John Bowlby (1969/82) proposed that attachment occurs in an organized system, the purpose of which is to make individuals feel safe and secure. He further proposed that it was within the dynamic emotional relationship between infant and primary caregiver that the infant's cognitive and affective appraisal of self and others is developed (internal working model) in ways that have a critical influence on the infant's perceptions of the environment and others, and on later personality development and social functioning. The primary pathway to a secure attachment is parental sensitivity to the infant's cues and signals, as well as an appropriate and consistent response to those signals (Ainsworth, 1978). This focus on the parent-infant relationship is particularly critical for those parents who are burdened and preoccupied with past or present conflicts or stresses that may intrude (knowingly or unknowingly) on the parent-infant relationship. Interventions to enhance the quality of parent-child interactions, therefore, must support and enhance sensitive and responsive caregiving and address the personal and contextual factors that can undermine sensitive care.

Attachment theory suggests that the models established early in life are difficult, but not impossible, to change. Supporting a parent-infant relationship can offer parents a different kind of relationship from other relationships that they have experienced before, and may result in significant shifts in the parent's relationship capacities with the infant (Fraiberg, 1980). Key components of the relationship between parent and interventionist include consistency, predictability, persistence, reliability and caring.

Developmental Theory

Theories of development have varied in the emphasis they place on contributions made by the characteristics of the child and the characteristics of the environment to later behaviour. In all developmental theories, however, outcomes are never a function of the child taken alone or the experiential context taken alone. Behavioural competencies are a product of the combination of an individual and his or her experiences. The transactional model of development (Sameroff & Chandler 1975) has suggested bi-directional processes of influence, in which the child may have an influence on the environment by virtue of his or her constitutional characteristics or by the history of his/her experiences.

2.1.5. Approaches and Interventions

Transtheoretical Model Of The Stages Of Change (usually called the Stages Of Change) is the theoretical framework for BTC (Prochaska et al., 1986). In this model, change happens in stages or cycles. The model identifies six stages through which people move when they change a problem behaviour. These are:

1. **Pre-contemplation.** The individual is not considering change.
2. **Contemplation.** The individual is thinking about change in the near future.
3. **Preparation.** The individual has decided to change and is seeking information about how to do it.
4. **Action.** The individual makes a plan and changes the problematic behaviour.
5. **Maintenance.** The individual sticks with the new changed behaviour but needs support to maintain it.
6. **Termination.** The individual maintains the new changed behaviour and no longer needs support.

The Stages of Change model encompasses the reality of setbacks or relapse as part of the process of recovery; the possibility of relapse can occur at any stage; and the likelihood that relapse can occur more than once during the process. It also acknowledges that all individuals, including pregnant and parenting women using substances, need different kinds of help depending on which stage of change they are in. In the BTC program, the Stages of Change model has been useful as a framework for assessing level of readiness to change parenting as well as substance use behaviours. BTC programs and services are mapped against the stages of change so that the services offered to mothers and children match the appropriate stage of change.

Motivational Interviewing: Building Commitment Through Relationship

Motivational interviewing is an approach designed to help build commitment and to reach a decision to change (Miller et al., 1991). It is a useful strategy for those who have ambivalence about making a behaviour change, and it has been shown to be particularly effective in treatment with women. Removing external barriers to change and providing social support that facilitates

change are key factors in the approach. In this approach, motivation is seen not as a trait or personality characteristic, but as something determined by the interaction between the woman and her counsellor. Through an empathic, accepting and non-judgemental relationship with a counsellor, women are offered an opportunity to explore the negative impact of behaviours on their lives, the benefits of changing, and the relationship between problematic behaviours and core values. (Mullins et al., 2004). As women identify their benefits, costs, life goals and decisions, costs and benefits, they uncover information about themselves and their counsellors. A motivational counselling approach:

- **Is interactive.** It is based on the belief that everything the counsellor does affects the quality of the interaction with the client
- **Places equal responsibility for change on the counsellor.** The counsellor's characteristics are among the most important predictors of success in interactions
- **Is client-centred and empathic.**
- **Avoids labels,** such as “alcoholic” or “drug addict”.
- **Reduces client resistance** by meeting it with reflection rather than confrontation.
- **Fosters a commitment to change** and brings a client to greater awareness of, and responsibility for, her substance use.
- **Emphasizes personal choice** regarding use, and personal control over decisions, by providing a range of possible alternatives for assistance.
- **Negotiates,** rather than imposes, treatment goals between client and counsellor.
- **Removes barriers to change,** such as providing child care, transportation and any other accessibility issues a woman might face.
- **Accepts relapse** as part of the process of change (Reynolds et al., 2002).

Developmental Guidance: Enhancing Knowledge of Child Development

Developmental guidance is generally educative, and is designed to enhance parents' knowledge and understanding of child development. Developmental information is provided within the context of a working relationship between the parent and the counsellor, who is able to respond sensitively and with regard to what the parent is ready to hear and able to use (Seitz & Provence, 1990). The assumption is that the enhancement of knowledge and understanding of child development and behaviour will benefit the mother in her ability to function comfortably and competently in the parenting role. This is especially important in understanding the meaning of key behaviours such as separation protest or toddler individuation. When parents lack that basic understanding of child development and behaviour, they may hold unrealistic expectations and get caught in a cycle of frustration and anger, attributing negative qualities to their child just because he or she is doing what children naturally do (Erickson & Egeland 1999). Developmental guidance also includes a tradition of anticipatory guidance – looking forward to the next expected events in the infant's development.

Infant-Parent Psychotherapy: Looking Back, Moving Forward

Consistent with attachment theory and research on intergenerational transmission of parenting, infant parent-psychotherapeutic intervention assists mothers in reflecting on what they learned in their own early relationships and how those experiences influence how they respond to their own children. This approach was described by Fraiberg and her colleagues (1980), who demonstrated that intervening with a parent (typically the mother) who had her infant present during the sessions could generate insights and progress with regard to the development of the child, the development of the mother, and the development of the relationship between the two – all as a positive working relationship between the counsellor and the parent grew over time. This approach is inherently three generational. The interventionist comes to understand the conflicts and expectations that the parent has internalized from her previous caregiving relationship with her own parents, which in turn become activated with her infant. There is an opportunity to use the infant’s developmental responsiveness in a positive way to provide new opportunities for the current parent to grow as she improves her current parenting relationship. The influence of internalized experiences across generations has been documented most dramatically in attachment research. (Fraiberg 1980; Benoit & Parker, 1994).

2.1.6. Programs and Services

A. BTC Pregnancy Outreach Program

The BTC Pregnancy Outreach Program is a Canada Prenatal Nutrition Program (CPNP) serving homeless, pregnant women with substance use problems. Through a street outreach model, the program provides information, resources, education and case management support. The BTC Pregnancy Outreach Program also offers the “BTC Satellite Group” at St. Joseph’s Health Centre. Delivered in partnership with Women’s Own Withdrawal Management Centre and the Toronto Centre for Substance Use in Pregnancy (TCUP), this is a combined prenatal/relapse prevention group, with facilitated access to prenatal medical care through the TCUP program (See 2.2.1 below for a more detailed description).

B. Addictions

Relapse Prevention Group. This group is offered to women who are in the early stages of their recovery. Behavioural and cognitive-behavioural approaches are used to assist women to develop strategies to manage cravings and other pressures to use substances.

Life Skills. This group offers structured lessons that are developed specifically for women recovering from addiction. The group sessions provide an opportunity for women to learn problem solving behaviours or skills in order to manage their lives more effectively while in recovery. Topics covered include: building trust, journaling to express feelings, building self-esteem, recognizing strengths, dealing with anger, creating supports, humour in recovery.

Recovery Group. This group assists women to identify and address the issues and feelings that emerge when their use of substances is no longer an option for them. Women who are eligible for this group are working to consolidate gains made in the earlier stages of their recovery by addressing the underlying issues related to their substance use in order to prevent a return to former behaviour patterns.

Individual Addiction Counselling. Addiction counselling is available on an individual basis for all women at BTC. Services offered on an individual basis include assessment, pre-treatment preparation, case management of addictions-related problems, and education and support on

addictions-related issues. Many women benefit from a combination of individual and group support for their recovery.

C. Parenting

New Mom's Support Group. This group is devoted to pre- and post-natal education and support. The group is delivered jointly by Toronto Public Health and Mothercraft. The focus of the group includes preparation for childbirth and parenting, and involves discussion of issues such as prenatal nutrition, breastfeeding, and prenatal attachment. Mothers may attend the group until their infant is 6 months of age. Topics such as breastfeeding, sleeping and feeding issues, infant development and stimulation, and bonding and attachment are discussed.

Nobody's Perfect Parenting Program. This program is facilitated by a nurse from Toronto Public Health and a BTC counsellor. This parenting program is group-based and is directed to families with children from birth to 5 years of age who have one or more of the following characteristics: young, single, low-income, or poorly educated, and socially, culturally or geographically isolated.

Cooking Healthy Together. The purpose of this program, offered Toronto Public Health, and co-facilitated by a BTC counsellor, is to increase knowledge regarding the nutritional needs of children, women and pregnant women living with a fixed and limited income. Women also gain skills in meal preparation, which increases their self-esteem and sense of self-efficacy. Since meals prepared in this communal cooking environment are shared and taken home by the women who have participated, this program also offers a nutritional supplement.

Parent-Child Mother Goose Program. This is a preventative program designed to assist parents to gain skills and confidence that enable them to create new and positive family patterns during their children's early years. This group for mothers and their babies and young children focuses on the pleasure and power of using rhymes, songs and stories together. The group is delivered by BTC Child Development Counsellors.

Hanen "You Make the Difference" Group. This is a communication-based prevention program, aimed at helping mothers establish the kinds of interactions with their children that foster self-esteem, the desire to explore and learn, and language development. It makes extensive use of video technology as a powerful teaching tool. This group is co-facilitated by a BTC Parent-Child Counsellor and a therapist with the Mothercraft Parent-Infant Program.

Mothercraft "Learning Through Play" Group. The goal of this facilitated parent-child play group is to support and expand on children's existing skills using didactic approaches combined with opportunities for parents and children to experience play-based activities in a facilitated and supportive environment.

Access Visits. In some situations, access visits for mothers whose children are in foster care may be held at BTC. Mothers and children receive the support of BTC staff and services during their access visits to facilitate preparation and planning for the smooth and positive transition of the child from foster care to the mother's care.

D. Developmental Clinic

Developmental Screening and Assessment. As part of the intake process, and at six-month intervals thereafter, the Battelle Developmental Inventory Screen is administered to all children in order to assess and monitor their developmental status. The child's mother is involved in the screening process and participates in creating a developmental plan, which incorporates the results of the screen, as well as her observations of her child. The developmental plan forms the basis for interventions for the child, and these are jointly implemented by BTC staff and the mother. Complete developmental assessments are administered to those children whose screens indicate the need for further assessment. Additional resources (e.g., speech and language services, occupational therapy, physiotherapy) are made available to the child and family based on assessed developmental needs.

Parent-Child Counselling. Parent-child counselling is delivered in centre-based and home-based sessions involving the mother and child. Various dyadic interventions are used including developmental guidance, interaction guidance using videotape, and parent-infant psychotherapy. The goal of this work is to enhance the stability and security of the attachment relationship between the mother and child by increasing the awareness of factors (past and present) that influence her parenting, as well as by increasing her understanding of her child's developmental and social-emotional needs.

Home Visiting. Home visitation is offered to complement the centre-based activities in which the mother and child participate, and as a vehicle to deliver parent-child counselling services. Home visiting is offered to all BTC participants and is delivered by Mothercraft's Parent-Infant Therapists.

E. Child Care

Parent Relief-Child Care. BTC operates a licensed child care centre for children of mothers who are attending appointments, groups or other activities at BTC, or in the community. Children are cared for by early childhood educators who provide a nurturing, stimulating and structured play environment. Individual developmental planning is implemented for each child based on his/her assessed strengths and vulnerabilities.

F. FASD Diagnostic Clinic

FASD Diagnostic Clinic. BTC benefits from the service of a paediatrician/toxicologist from the Hospital for Sick Children – Motherisk Program who holds a weekly clinic on site. The paediatrician sees all of the children and records a detailed prenatal exposure history. The children are seen in the clinic every six months for follow-up related to their prenatal substance exposure, or more frequently based on either the assessment of the physician or questions and concerns of the mother. FASD assessments and paediatric follow-up occur for all BTC children who have confirmed prenatal alcohol exposure. When appropriate, additional referrals are made for further assessments and/or diagnoses. Information and education are provided to the mother regarding the effects of her prenatal substance use, and any questions regarding breastfeeding and substance use are addressed.

E. Health/Medical Services

Medical Services. BTC works closely with the Toronto Centre for Substance Use in Pregnancy (TCUP) in the Department of Family and Community Medicine at St. Joseph's Health Centre. Women who require general medical care, prenatal health care, a medically-managed withdrawal,

and/or a methadone maintenance program are referred if they desire. The medical services provided are responsive, respectful, and consistent with BTC's philosophy of care.

H. Mental Health Services

Individual Trauma Counselling. Women at BTC have access to support from a mental health clinician who provides on-site individual counselling (primarily related to family of origin and trauma-related issues) as well as referral for mental health assessments and more intensive mental health services as required.

G. Basic Needs Support

Breakfast and Lunch program. With the support of the Second Harvest food recovery program, BTC offers a daily breakfast and lunch to participants as a nutritional supplement. The lunch program meets a basic need for food and also relieves some financial stress for families on very limited incomes.

Clothing Exchange. Through clothing donations, a supply of children's and adult clothing is maintained and made available to participants.

Transportation. TTC tickets are provided to participants to travel to and from BTC.

2.2 Program Development

The following section describes new programs and services, partnerships, and research that have developed over the past ten years. The development of the BTC model has been an emergent process, responding to evaluation and research findings, as well as to the voices of the women and children it serves.

2.2.1 Breaking the Cycle Pregnancy Outreach Program: Substance Use, Pregnancy and Engaging Women in Care

BTC introduced a pregnancy outreach model of service after early evaluation data (Moore et al., 1998) indicated that the program was engaging a higher proportion of women who were parenting (78%) than those who were pregnant (22%). This 22% engagement rate was consistent with the findings of similar programs in the U.S., and was higher than the rates of pregnant women attending addiction treatment programs in Toronto. Nevertheless, the lower engagement rate led to an effort to engage more of this vulnerable population of pregnant women.

In a retrospective file analysis, Hicks (1997) identified three significant factors in pregnant women who visited but were unable to remain engaged in the BTC program: 1) homelessness, 2) crack cocaine as their primary drug of choice, and 3) lower level of educational attainment. The study drew attention to the often co-existing homeless status of pregnant women using substances and concluded that, because of this higher incidence of homelessness, pregnant women represented a higher-risk sub-population of drug-using women with greater barriers to health and effective treatment.

The development of the BTC Pregnancy Outreach Program in 1999 was a proactive response to these findings, with the aim of engaging women in services as early as possible during their pregnancies in order to positively influence fetal and maternal health outcomes. The pilot project was funded by the United Way's Advance Funding Program. The project objectives were:

- To consult with networks and agencies in contact with pregnant substance-using women in order to receive input and build an integrated and responsive community referral network;
- To provide education and training to other agencies;
- To decrease the isolation and marginalization of pregnant women using substances, increase their knowledge of available community resources, and promote their use of services, e.g., primary health care, prenatal care, medically managed withdrawal programs, methadone programs;
- To increase maternal planning for herself and her expected infant;
- To establish a fluid and mobile outreach link between BTC and the community so as to increase engagement of pregnant women;
- To study techniques effective in engaging substance-using pregnant women.

The BTC Pregnancy Outreach Program did not duplicate existing community services but was designed to facilitate timely access to existing services by pregnant women using substances through:

- Street outreach
- Liaison with street-based agencies
- Provision of information and resources to women regarding their health and the health of their foetus
- Provision of food/milk coupons,
- Facilitation of referrals to health and social services,
- Provision of transportation to appointments and accompanying women to appointments to facilitate engagement.

Early evaluation data on a sample of 53 women (Leslie, 2001) confirmed that the pregnancy outreach model directed to substance-using homeless women was successful in:

- a) Reaching the target population
- b) Decreasing isolation
- c) Engaging women at earlier stages of pregnancy.

BTC evaluation data (Pepler et al., 2002), confirmed that early engagement of pregnant women using substances in health and social support services resulted in positive outcomes for mothers and children. Infants born to mothers engaged within the first two trimesters were found to have more positive outcomes compared to those born to mothers engaged in the last trimester, as follows:

- Higher birth weight
- Fewer prenatal risk factors (placenta previa, low weight gain, minimal prenatal care, infections, anaemia, high blood pressure, diabetes, Hepatitis C)
- Reduced prenatal substance exposure
- Fewer birth complications
- Better post-natal health
- Reduced length of hospital stay

- Fewer mother-child separations at birth

In April 2001, Health Canada approved funding through its Canada Prenatal Nutrition Program (CPNP) to expand and enhance the BTC Pregnancy Outreach Program, thereby ensuring its sustainability and stability. This resulted in the expansion of the program from a two-day to five-day a week program and the development of a BTC Satellite Program at St. Joseph's Health Centre to accommodate a 70% increase in the number of pregnant women engaged at BTC since the inception of the outreach program.

The BTC Satellite Program at the St. Joseph's Health Centre provides a weekly support group that combines relapse prevention, prenatal health and attachment goals to offer a holistic and comprehensive service. Included are a meal, childcare³ and a prenatal clinic by family physicians, so that women can access their health and social supports in a single-access model in one day. An unexpected positive outcome of this partnership included the agreement of the hospital pharmacy to dispense methadone (which it had not previously done) because of the level of medical and psychosocial support available to women through the partners involved.

2.2.2 Breaking the Cycle and Fetal Alcohol Spectrum Disorder: An Integrated –Maternal Child Service Model

All BTC evaluations (Moore et al., 1998; Pepler et al., 2002) have confirmed that alcohol and crack cocaine are the primary drugs of choice of pregnant women in the BTC programs.⁴ Prevention of FASD involves the care of pregnant women who have significant alcohol problems or addictions, and includes ways to decrease their isolation from the broad determinants of health. The BTC Pregnancy Outreach Program offers an important opportunity for FASD prevention efforts to reach a marginalized population of women who are at high risk for delivering infants who may be affected by prenatal alcohol exposure.

BTC evaluations (Moore et al., 1998; Pepler et al., 2002) have also confirmed that alcohol and crack cocaine are the primary drugs to which BTC children are exposed prenatally. Consistent with the recommendations of the Centres for Disease Control and Prevention (2005), all BTC children for whom prenatal alcohol exposure is confirmed are referred to the FASD Diagnostic Clinic at BTC for assessment and referral. The confirmed maternal history of prenatal alcohol use, coupled with ongoing contact of children who attend BTC with their biological mothers, offers a unique opportunity for identification, assessment and diagnosis through the FASD Diagnostic Clinic, and for intervention/treatment with exposed children through BTC.

Over the past 10 years BTC has become a model of an integrated and comprehensive response to FASD, offering prevention, identification, diagnostic and intervention services in the prenatal and early childhood periods within a maternal-child framework. The elements of the FASD service model developed at BTC include:

- The **prevention** or reduction of harms associated with alcohol or other substance use in pregnancy. The BTC approach reflects the fact that pregnant women who use alcohol “are also subject to other adverse conditions that are strongly related to their use, including: poor nutrition, poverty, tobacco use, illicit drug use, violence, history of obstetrical problems, lack of prenatal

³ Provided by Parkdale Parents Primary Prevention Program.

⁴ There is broad agreement that alcohol and crack cocaine are the drugs of most concern for Toronto (Toronto Drug Strategy 2005)

care, among others. Thus, FAS is not simply an issue of alcohol abuse but a complex issue rooted in the underlying social and economic conditions which influence all aspects of maternal and child health” (Canadian Centre on Substance Abuse, 1994). These root causes comprise the circumstances that not only bring some women to alcohol use, but which also make it difficult for them to stop or decrease their use during pregnancy. The BTC Pregnancy Outreach Program was developed in 1998 as a proactive FASD prevention strategy designed to engage pregnant women using alcohol or other substances as early as possible in pregnancy in order to optimize maternal, foetal and child health outcomes.

- The timely **identification** of children who may have special needs stemming from prenatal alcohol exposure. Because children attend BTC with their biological mothers, we have the advantage of a maternal report on time and doses of intrauterine exposure, as well as all other co-occurring factors. The non-judgemental, friendly and supportive environment facilitates promotes maternal openness regarding prenatal history and, indeed, mothers disclose a full picture of their alcohol and drug use (Avner & Koren, 2004). Access to confirmed maternal prenatal alcohol use history is critical to the confirmation of an FASD diagnosis.

- The **assessment and diagnosis** of children who have been identified with challenges that may be related to prenatal exposure to alcohol. The important role of the biological mother in this process is critical. Respectfully and sensitively engaging pregnant women who use alcohol in the process of information-sharing around their infant-to-come is critical to accurately assessing and understanding the child’s needs – at birth, and throughout his/her life – and, most importantly, to acquiring a diagnosis.

- The provision of appropriate **intervention and treatment** which capitalize on mothers’ and children’s strengths, and support special challenges. Accurate assessment and understanding of the child’s strengths and vulnerabilities result in the opportunity to optimize outcomes through early intervention, treatment and parenting support, and to prevent the development of secondary disabilities in children who are inaccurately understood and responded to throughout their lives. Because virtually all of the child participants at BTC have been exposed to alcohol prenatally, the child developmental and parenting programs provide an opportunity for early intervention and support.

When the continuum of caring is interrupted or fragmented, the likelihood increases that affected children will not be identified, assessed, and receive appropriate intervention. This, in turn, increases the risk for the development of secondary disabilities, which include mental health problems, substance use, victimization, criminality, trauma and unplanned pregnancy (Streissguth et al., 1996; Institute of Medicine, 1996). The intergenerational transmission of FASD cannot be ignored (Rouleau et al., 2003). By designing and delivering compassionate programs to address the issues of alcohol use in pregnancy and FASD in an integrated and comprehensive way, new cycles of health across generations become possible.

2.2.3 Breaking the Cycle and Tobacco Reduction/Cessation

In 2003, BTC collaborated with Drs. Peter Selby (Centre for Addiction and Mental Health) and Christine Singh (St. Joseph’s Health Centre), to conduct a qualitative study to examine the needs of women participants at BTC with respect to smoking reduction/cessation (Singh & Selby, 2004). The purpose of this research was to identify and respond to the needs of pregnant women at BTC

who are experiencing serious co-morbid addictions. The study used focus groups to examine the following issues:

- Barriers to smoking cessation among this population of women
- Motivations to quit for this population

The following recommendations for future smoking reduction/cessation programs at BTC were made:

1. Offering smoking reduction/cessation along with other drug treatment methods at the initial intake with minimal pressure and then a reintroduction of the topic at later times for those women who do not participate earlier
2. Regular long term smoking reduction/cessation counselling
3. Ready and monitored accessibility of Nicotine Replacement Therapy (NRT)
4. Learning centre with videos, written information for self-education about smoking
5. A smoking cessation group meeting with peer support and educational seminars
6. Weekly seminars on topics such as nutrition, stress management, lifestyle alternatives

In response to these recommendations, the following initiatives were undertaken:

STARSS (Start Thinking About Reducing Second Hand Smoke)

BTC confirmed its commitment to continue to deliver the STARSS program beyond its pilot phase, and to consider expanding the current individualized delivery of the program to group format. BTC was a pilot site for the development of the STARSS (Start Thinking About Reducing Second Hand Smoke), developed by AWARE (Action on Women's Addictions – Research and Education) and continues to offer it to all participants on an individualized basis through the home-based Mothercraft Parent-Infant Program (AWARE, 2004)

Pregnets

BTC has developed a strong referral and service relationship with the Pregnets. This has resulted in seamless access to specialized clinical support (including access to NRT) for pregnant women who desire to reduce or cease their tobacco use. Pregnant women who desire to reduce or stop their smoking during pregnancy are referred to Pregnets for assessment and treatment (Centre for Addiction and Mental Health 2005)

2.2.4 Breaking the Cycle and the Ministry of Community Safety and Corrections: Promoting a Continuum of Care for Substance-Involved Incarcerated Women -- From Custody to Community

Previous evaluation reports have indicated high rates of contact and involvement around legal issues for BTC women, with almost 40% of BTC women reporting current legal problems in the corrections system (Pepler et al., 2002). Over the past year, a service partnership between BTC and the Ministry of Community Safety and Correctional Services has been confirmed in order to integrate probation and parole services for BTC mothers who are also involved with the Corrections system. This relationship is based on discussions that confirmed common/shared values, principles and approaches for supporting pregnant and/or parenting women involved both at BTC and in the corrections system, including:

- a. Agreement that pregnant and parenting women with substance use problems who are also involved in the corrections system have inter-related problems (incl. related to trauma, substance use, parenting and children) which must be addressed simultaneously
- b. Agreement on the importance of a relationship-based approach to serving women with concurrent substance use and criminal issues. Women's criminal issues and substance use issues are often linked to relationships, and women develop and solve these problems through a relationship-based approach such as that offered at BTC
- c. Agreement that a service partnership between BTC and the Ministry of Community Safety and Correctional services will further decrease the fragmentation of services used by pregnant and/or parenting women with substance use problems, that this will facilitate an integrated and coordinated approach to case planning, and that this will increase positive outcomes for women and children
- d. Agreement that addressing root causes of criminal behaviour beyond those narrowly defined as "criminogenic", will reduce breaches and enhance women's ability to complete requirements that will lead to their resolution of outstanding criminal matters. The root causes of women's criminal behaviour and their substance use behaviour are the same, and include trauma, violence, poverty, isolation, social exclusion, and co-occurring mental health problems. Moreover, there are special issues associated with FASD and the justice system (Moore & Green, 2004)

The partnership has resulted in the dedication of a female probation/parole officer to act as a service liaison between BTC and the Ministry of Community Safety and Correctional Services. This dedicated probation/parole officer meets with mothers who are on probation or parole orders on-site at BTC, thereby expanding the services women and mothers are able to receive in BTC's integrated, single-access model.

2.2.5 Breaking the Cycle and Child Welfare: A Risk and Resilience Framework for Decision-Making with Substance-Involved Families

Previous BTC evaluations have confirmed the high rates of out-of-home placement of BTC children (either in kinship or foster care situations). Almost 2/3 of children of BTC mothers are in the care of others (Pepler et al., 2002).

Due to the disparity in the literature, clinicians and policymakers continue to have difficulty in deciding whether or not to remove a child from his/her biological mother, where to place children, how long separations should last, and under what conditions children should be reunited with their substance-using mothers (National CASA, 1999). The difficulty for researchers and clinicians is in knowing whether separating substance-exposed children from their mothers is a risk factor or a protective factor for child developmental outcomes and for the quality of mother-child interactions.

Motz (2003) examined 55 mother-child dyads at BTC families who had been engaged in treatment at some point between 1995 until 2000. This sample of families was statistically representative of the BTC families identified in the 1995 – 2002 evaluation report (Pepler et al., 2002). The study described the context of risk in which these children had lived in their short lives (most were less than two-years-old), as well as the extreme trauma and stress that their

mothers had experienced. Child welfare agencies were involved with the majority of the families due to the multi-risk situations in which they lived and also because the women often did not possess adequate resources to parent their children sensitively, responsively, and safely. For this reason, many of the children were in the custody of child welfare services and living either in foster care or with one of their relatives. Over half of the children investigated had experienced separations from their mothers, some for almost half of their short lives. This can be confusing and traumatic for young children, as well as detrimental to the formation of a secure attachment (Ainsworth, 1972; Landy, 2002).

Motz found that the impact of removing children from their mothers had different consequences depending on the amount of cumulative risk to which the children were exposed in their caregiving environments. Children who were in the high-risk group (5-9 risk factors) and had a longer separations from their multi-stressed caregiving environment, scored higher **{TIM – presumably “higher” is better; make this clear}** on a test of developmental outcomes than those who had shorter separations from high-risk environments. **Cumulative risk did not play a significant moderating role in this investigation. {TIM says “ this is self-contradictory –see graph on next page”}** In contrast, there was no significant relationship between separations and child development for children who were in the low-risk group (0-4 risk factors), indicating that an increasing number of days separated from their mothers did not relate to improved outcomes for these children. Therefore, it is suggested that for children who live in low-risk environments, any benefits in a change in caregiving environment may not outweigh the stress of being removed from their homes and separated from their mothers.

The difference in outcomes, based on level of cumulative risk, may account for some of the controversy in previous literature regarding the developmental outcomes of substance-exposed children.

Given the results of this study, suggestions were made about intervention in families of substance-exposed children. When families where there are fewer risk factors and no safety issues for the child, intervention might best take place within the current caregiving environment. This does not preclude the involvement of child welfare services; in fact, quite the contrary. Treatment for families needs to be multi-systemic and should provide services in the areas of child protection, as well as medical service, psychological services, public health services, parent-infant/child services, and addiction services, as in the BTC model. In this way, the entire context of risk in which these families live can be addressed. In addition, services need to work in conjunction with one another, so that treatment is coordinated and comprehensive, as opposed to piecemeal.

In contrast, substance-exposed children who live in a high-risk environment are more likely to need alternate care arrangements, especially in circumstances where a continuing relationship with the mother is more detrimental to the children than positive (e.g., cases of neglect and abuse); however, the need for a multi-systemic intervention remains. It should attempt to reduce the risks in the caregiving environment, educate in the area of child development, and support the mother-child relationship. As mentioned earlier, children need to be placed in a nurturing and stimulating environment where they may have the opportunity to “catch-up” in some of the developmental areas where they have experienced delays. There also needs to be support for the alternate caregivers around the developmental and relationship needs of a substance-exposed child, which although similar to other children from high-risk situations, are also specialized due to the potential insult caused by the in utero exposure to drugs.

Part 3: Program Evaluation

The following sections present information on the evaluations of the BTC Pregnancy Outreach Program (3a) and the Breaking the Cycle Program (3b).

Part 3(a): Program Evaluation BTC Pregnancy Outreach Program (CPNP)

This section describes the methods used and the results obtained in the evaluation of the BTC Pregnancy Outreach Program. The methods section includes information about the number of families, the tools, and the procedures used to acquire information about participants in the BTC Pregnancy Outreach Program. These data were collected for two central purposes: the first was to attain a clinical understanding of the life contexts of the women served in order to make appropriate clinical and case management decisions; the second was to evaluate the outcomes for families who utilize the program so that any necessary and appropriate changes to services could be made, based on empirical evidence. The evaluation was designed to assess the impact of the program on:

- Efficacy of a pregnancy outreach model to engage homeless, pregnant women using substances
- Impact of early engagement on maternal, foetal and child outcomes
- Impact of engagement on maternal isolation

3.1 Method

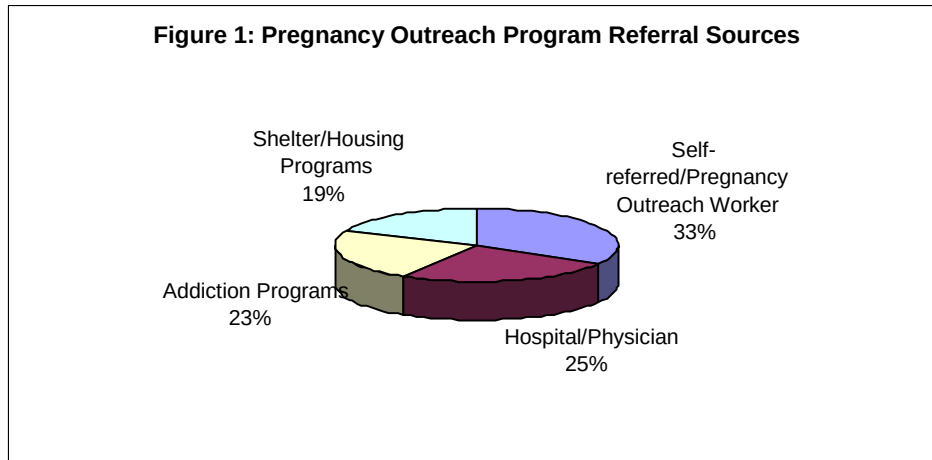
From this evaluation, we examined data collected from 160 women who participated in the program during the period April 2001 – May 2005. All women clients in the BTC Pregnancy Outreach Program are administered two measures designed by the Canada Prenatal Nutrition Program (CPNP). Upon entry into the Pregnancy Outreach Program, clients are asked to complete the CPNP Welcome Card. This measure is a short, 7-item survey tool designed to obtain information about the client's pregnancy, demographic factors and reasons for engagement in the CPNP. Once rapport is established between the mother and the pregnancy outreach worker (typically after 5-10 contacts), the CPNP Individual Client Questionnaire-2 (ICQ-2) Prenatal section is administered. This measure gathers information on the current pregnancy, previous pregnancies, mothers' access to food, lifestyle, and general demographic information. In addition to the CPNP measures, the pregnancy outreach worker collects information on services delivered to the woman through the program including any case management and referrals made to other community providers, and their outcomes.

Once the infant is born, service to mother and child is transferred from the BTC Pregnancy Outreach Program to Breaking the Cycle. The ICQ-2 Postnatal section is administered by a Breaking the Cycle Parent-Infant Therapist as soon as the mother is available after the birth of her baby. This questionnaire collects information about the birth of the baby, the labour, medical conditions experienced by the mother, breastfeeding, and lifestyle.

3.2 Results

3.2.2 Referral Sources

The distribution of referral sources for the women who were referred to the BTC Pregnancy Outreach Program are depicted in Figure 1 below:



- Thirty-three (33%) of women engaged in the BTC Pregnancy Outreach Program were a result of self-referrals or through the street outreach efforts of the pregnancy outreach worker.
- Twenty-five percent (25%) of referrals were from community-based hospitals;
- Twenty-three percent (23%) were from addiction related services, including withdrawal management centres and the Toronto Drug Treatment Court
- Nineteen percent (19%) of referrals were through the shelter/housing system, including drop-in centres.

Referrers to the program included hospitals, treatment agencies, shelters/hostels and drop-in centres for homeless people. The referrers represented a broader range of agencies than were targeted for the initial community consultation, indicating that information about the BTC Pregnancy Outreach Program has extended beyond the initial community outreach efforts. Of most importance, however, is the fact that the greatest numbers of referrals to the BTC Pregnancy Outreach Program came from women themselves. This demonstrates the degree of acceptance of this project among this community of women who are often fearful and threatened by service providers. The self-referrals and referrals of women by other BTC participants result in the engagement of the most marginalized women – those who are not connected to any services.

Fully 1/3 of all referrals originated from the BTC Pregnancy Outreach Program. This indicates a high level of awareness of the BTC Pregnancy Outreach Program among those providers who

have contact with the pregnant, homeless women who are substance-involved across a range of sectors. It should also be noted that many of the referrals coded as “self-referrals” were the result of women receiving information from a service provider, and following up on their own, as illustrated below:

*I found out about this place because...my drug of choice was ecstasy and cocaine, and I like to drink with the two of them, and I ended up doing a bad batch of E, and I ended up waking up to a police officer and being restrained in a hospital gurney. And...after they pumped my stomach and God only knows whatever else they did ... they told me I was pregnant. And at first I thought the doctor was a lunatic and .. you know, crazy, and “What do you mean? I’m not pregnant! You’re trying to take my drug life away from me? You’re crazy bud”!. And I sat there and just sort of lived with the fact that “Okay you **are** pregnant, now you’ve got to do something”. And one of the police officers mentioned about (Breaking the Cycle) and gave me the (BTC Pregnancy Outreach Worker’s) name.*

3.2.3 Sociodemographic Characteristics: Reaching the Target Population

The BTC Pregnancy Outreach Program serves women who are pregnant and using alcohol and/or other substances, and who are also experiencing numerous other high risk conditions for poor pregnancy outcomes including homelessness, poverty, violence, isolation, and a lack of health and social support services. During the period of the present evaluation, the mean age of the women served in the program was 28 years, with a median age of 30 years (range 16-47 years); 13% of women served were less than 20 years of age. The majority (91%) were Canadian born, with 13% identifying as aboriginal women. The data confirmed that the program was reaching the target population of homeless, pregnant women who are substance-involved. Comparisons with national and regional data from the ICQ2 for 2003-2004 highlighted that BTC mothers and children live in significantly higher-risk conditions of risk as compared to CPNP participants in other projects across Canada and in Ontario. The data confirmed the complex medico/socio-economic contexts that surround the lives of pregnant women with substance use problems, including their marginalization from social determinants of health.

Substance use

Eighty-nine per cent (89.4%) of the 160 women served through the BTC Pregnancy Outreach Program were actively using substances when first engaged in the program. Table 2 below outlines the nature of substance use reported by the women and Table 3 outlines the women’s primary substance used. Seventeen women refused to answer questions regarding substance use at admission. The illicit nature of the substance use, together with the stigma, shame and fear associated with substance use in pregnancy may have made it difficult for women to report honestly about ongoing substance use during pregnancy.

Table 2: Current Substances Used (N=143)

Substance	Percent
Crack	72
Alcohol	32
Cannabis	31
Cocaine	18
Heroin/Opiates	10

Prescription Medications	13
---------------------------------	----

The women were asked to report on all of the substances that they were using. These data reflect that the majority of women in the program reported poly-substance use, and they were using an average of two substances each.

Table 3: Primary Addiction (N=160)

Substance	Percent
Crack	67
Alcohol	12
Marijuana	8
Heroin/opiates	7
Cocaine	4
Prescription medication	2

Crack cocaine is reported as the primary substance of choice for 67% of the women seen in the program, with alcohol reported as the primary substance of choice for 12% of this population. Crack cocaine and alcohol accounted for the primary substances of choice for almost 80% of the women in the BTC Pregnancy Outreach Program.

The use of crack cocaine and alcohol places pregnant women and their children at high risk for pre and postnatal difficulties. The BTC Pregnancy Outreach Program offers an important opportunity for FASD prevention efforts to reach a marginalized population of women who are at high risk for delivering infants who may be affected by prenatal alcohol exposure. The infants of women who use crack cocaine are at high risk not only due to their biologic exposure to the substance prenatally, but also because their mothers are less likely to engage and remain in treatment than users of other drugs. People who use crack cocaine have been found to have lower retention rates than non-crack cocaine users, even after controlling for education, age, history of arrest, and alcohol use (Rowan –Szal et al., 2000).

Data collected from the ICQ2 for the fiscal year 2003 – 2004 indicated that a significantly higher percentage of BTC women (90%) reported that they had smoked cigarettes since the beginning of the pregnancy compared to participants in other CPNP projects nationally and regionally/provincially. Table 4 provides data on tobacco use in CPNP project nationally and regionally and in the BTC Pregnancy Outreach Program. These data underscore the high rate of tobacco use among pregnant women in the BTC Pregnancy Outreach Program.

Table 4: From the beginning of this pregnancy did you smoke any cigarettes

	National (N = 7887)	Ontario (N = 2381)	BTC Pregnancy Outreach Program n = 10
Yes	45%	28%	90%
No	52%	69%	-
Don't know/choose not to answer	2%	3%	10%

Table 5 below provides data collected in the same one-year period with the ICQ2 regarding alcohol use in pregnancy. Women in the BTC Pregnancy Outreach Program reported significantly higher rates of “often” and “sometimes” responses compared to CPNP participants in other Ontario projects (60% vs. 28% respectively, $z = 2.24$, $p=0.025$)

Table 5: From the beginning of this pregnancy, but before you knew you were pregnant, how often did you drink alcohol?

	National (N = 7887)	Ontario (N = 2381)	BTC Pregnancy Outreach Program (N = 10)
Often	5%	2%	-
Sometimes	37%	26%	60%
Once	<1%	<1%	-
Other	<1%	<1%	-
Never	55%	69%	30%
Don't know/choose not to answer	3%	2%	10%
Average number of times drank 5 or more alcoholic drinks in same day	2.2	1.6	1.3

Health/mental health problems

During the five year period of the evaluation, we gathered data on women's health and mental health problems, as well as their medical conditions. Table 6 summarizes the women's reports of the health and mental health problems they were coping with:

Table 6: Health/Mental Health Problems

	Percent
Hepatitis C (N = 151)	5
HIV (N = 151)	1
Asthma (N = 159)	10
STDs (N = 159)	1
Depression (N = 159)	4
Bipolar Disorder (N = 159)	4
Borderline Personality Disorder (N = 159)	1
Schizophrenia (N = 159)	4

These data suggest elevated rates of co-occurring disorders among this population, with the rate of reported schizophrenia double that reported in the general population (DSM-IV, 1994). (DSM-IV, 1994). Mary – please see Patty’s comment, and make a decision about what we should say here, if anything. Sounds like this statement may need to be deleted, and if so, should we retain Table 6? I leave it to you, and please make the appropriate edits in the text. Thx

Obstetrical history

For seventy percent (N = 160) of women in the BTC Pregnancy Outreach program, this index pregnancy was not their first pregnancy: they have had an average of one prior pregnancy (range 0-10). When a sub-sample (n = 10) of BTC women were examined for the CPNP National Evaluation in 2003-2004, it was confirmed that a significantly higher percentage of BTC women had had previous pregnancies compared to CPNP participants nationally and provincially (100% vs. 60% vs. 61%), $z = 2.55, p = .01$, and $z = 2.53, p = .01$, respectively.

Housing status

Many of the women who participated in the BTC Pregnancy Outreach Program were living in Forty-six per cent (46.4%) of women reported that they were living in conditions of “visible homelessness”, which includes “*those who stay in emergency hostels and shelters and those who sleep rough in places considered unfit for human habitation, such as parks and ravines, doorways, vehicles, and abandoned buildings*” (Sistering, 2002, p.vii.). Thirty six per cent (36%) reported that they were living in an apartment or house. This finding does not take into account those who are living in shared accommodation, and may under-report the degree of transience involved in these often short-term and unstable housing situations. The majority of those who were living in apartments or houses (36%) were paying market-level rents. These women are living in conditions of “hidden homelessness”, which includes “*...situations where women are paying so much of their income for housing that they cannot afford the other necessities of life such as food; those who are at risk of eviction; and those living in illegal or physically unsafe buildings or overcrowded households.*” (Sistering, 2002, p. vii). The cumulative impact of substance use and homelessness on prenatal health and birth outcome has been documented.

Table 7: Housing Status (N = 160)

Accommodation	Percent
Shelter/hostel/Out of the Cold	46
Apartment	30
Other accommodation	16
House	6
Incarcerated	2

Little et al., (2005) found that the risk of preterm delivery was almost tripled among women affected by either homelessness or substance use. Among women with *both* risk factors the risk was about 6 times higher than that of a control group.

Income status

Over one-third (37%) of the women served in the BTC Pregnancy Outreach Program reported that they had no income. Almost fifty percent (49%) of program participants were receiving social assistance.

Table 8: Income (N=160)

Income Source	Percent
General Welfare/PNA	44
No Income	37
ODSP	10
Employment Income	3
Other Income	6

ICQ2 data for 2003-2004 confirm that the poverty reported by BTC women has an impact on their food security. Tables 9, 10 and 11 illustrate that BTC outreach women report statistically significantly higher rates of food insecurity than do CPNP participants nationally and provincially.

Table 9: In the past year, was the following statement often, sometimes or never true for you: The food I bought just didn't last, and I didn't have money to get more.

	National (N = 7887)	Ontario (N = 2381)	BTC Pregnancy Outreach Program (N = 10)
Often true	13%	11%	40%
Sometimes true	37%	30%	50%
Never true	46%	55%	10%
Don't know/choose not to answer	5%	5%	-

Stats for Table 9: Proportion often or sometimes true

National	Ontario	BTC	z-value (BTC vs. national)	p-value	z-value (BTC vs. Ontario)	p-value
3944/7887	976/2381	9/10	2.93	.003	3.14	.002

Table 10: In the past year, was the following statement often, sometimes or never true for you: I couldn't afford to eat balanced meals in the past year

	National (N = 7887)	Ontario (N = 2381)	BTC Pregnancy Outreach Program (N = 10)
Often true	13%	10%	50%
Sometimes true	33%	26%	40%
Never true	49%	59%	10%
Don't know/choose not to answer	5%	5%	-

Stats for Table 10: Proportion often or sometimes true

National	Ontario	BTC	z-value (BTC vs. national)	p-value	z-value (BTC vs. Ontario)	p-value
3628/7887	857/2381	9/10	2.79	.005	3.55	.0004

Table 11: In the past year did you (or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money or food?

	Ontario (N = 2381)	BTC Pregnancy Outreach Program (N = 10)
Yes	21%	80%
No	74%	20%
Don't know/choose not to answer	6%	-

Stats for table 11: Proportion 'yes'

Ontario	BTC	z-value	p-value
500/2381	8/10	4.55	<.00001

Educational attainment

Table 12 indicates the distribution of levels of educational attainment. The mean level of education completed was grade 11, with 41% of women reporting that they had not gone beyond grade 10.

Table 12: Educational Attainment (N = 160)

Level of Attainment	Percent
Less than grade 9	20
Grade 10	21
Grade 11	14
Completed high school	25
Completed post secondary	20

According to the ICQ2 data for 2003-2004, a significantly higher proportion of BTC mothers had attained ten years of education or less compared to both national and provincial CPNP participants ($z=2.57$, $p=.01$, and $z=3.27$, $p=.001$, respectively).

Table 13: Mothers' education

	National	Ontario	BTC Pregnancy
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	(N = 7887)	(N = 2381)	Outreach Program (N = 10)
Ten years of schooling or less	32%	25%	70%
11-12 years of schooling	40%	31%	20%
13-16 years of schooling	20%	33%	0%
More than 16 years of schooling	4%	8%	0%
Other	<1%	<1%	10%
Don't know/choose not to answer	3%	3%	0%
Average years of education	11.5	12.4	9.8

Isolation

Of the total sample of mothers in the BTC Pregnancy Outreach Program (N=160), 60% reported that they were single, which highlights their isolation in personal relationships.

Table 14: Relationship Status (N = 160)

	Percent
Single	60
Married/common-law	22
Non common-law partner	18

When compared with mothers whose infants were born while attending BTC prior to the establishment of the Pregnancy Outreach Program (i.e., pre 2001), there was a trend for clients of the Pregnancy Outreach Program to be less likely to have a partner or someone else living with them ($p = .06$) and significantly more likely to be unstably housed ($p = .05$). While these findings should be considered preliminary due to the small sample size ($n = 10$), they underscore the level of isolation and lack of stability that are pervasive themes in the lives of women engaged in the BTC Pregnancy Outreach Program. These data also confirm the identification of homelessness/housing instability as a significant barrier to engagement of pregnant women using substances in programs offering centre-based services only.

A sub-sample of respondents who provided data for the ICQ2 in 2003-2004 confirmed that a significantly higher percentage of BTC women did not live with their children, compared with other CPNP participants both nationally, $z = 2.22$, $p = .03$, and provincially, $z = 2.22$, $p = .03$. In fact, *none* of the ten women in the BTC sub-sample were living with their children, compared with 33% of women in the national sample and 33% of the provincial sample whose children were living with them. Further, a significantly higher percentage of women responding to questions regarding their baby's health in the first two weeks of life did not know or did not answer the question as compared to other CPNP participants both nationally and provincially (50% versus 4% versus 4% respectively). For the BTC sample, the mothers' lack of knowledge is due to the fact that the children were removed from the mothers' custody at birth and placed in alternate caregiving situations (kinship or foster care).

Table 15: Living Arrangements

	National (N = 7887)	Ontario (N = 2381)	BTC Pregnancy Outreach Program (N = 10)
I live with my husband/spouse or partner	60%	67%	60%
I live with my children	33%	33%	0%
I live with my parents	17%	12%	10%
I live with relatives other than my parents or children	9%	9%	0%
I live alone	5%	6%	20%
I live in a group home	1%	1%	0%
Other	6%	4%	10%
Don't know/choose not to answer	2%	2%	0%

3.2.4. Outcomes

1. Early Engagement

The impact of early engagement of pregnant women using substances on a range of outcomes related to maternal, foetal and child outcomes including infant gestational age and birthweight (Fiocchi et al., 2001; Pepler et al., 2002) has been reported. The literature has confirmed that women who initiated treatment, prenatal care, and/or abstinence from mood-altering substances at later dates, and those with longer histories of substance abuse, were more likely to deliver a low birthweight baby.

Table 16 indicates that almost one third (31%) of women were engaged in the first trimester of pregnancy; 40% were engaged in the second trimester and 29% were engaged in the third trimester of pregnancy. Almost half of the women served (47%) were engaged in the first four months of pregnancy.

Table 16: Gestational Age at Admission (N = 160)

Month of gestation	Percent
One month	3
Two months	13
Three months	15

Four months	16
Five months	13
Six months	11
Seven months	19
Eight months	6
Nine months	4

These data demonstrate the success of the outreach efforts for early intervention. Contact with women occurs at an early stage of their pregnancy, offering early opportunities for the introduction of information and education about resources in the community, the earlier introduction of health and treatment interventions, and for the receipt of food supplementation and transportation. These, in turn, lead to more positive maternal and foetal health outcomes, including better maternal health in pregnancy and higher infant birth weights (Pepler et al. 2002)

Recent data confirm that the impact of early engagement endures well beyond the perinatal period, and includes impacts on completion of treatment/intervention plans, custody of children at discharge from BTC, and maintenance of recovery (see 3 to 5 below).

2. Decreased isolation

An aim of the BTC Pregnancy Outreach Program is to reduce the womens' alienation from social determinants of health by facilitating the use of services such as primary health care, prenatal care, medically managed withdrawal programs, and methadone maintenance programs. The number of referrals made by the BTC Pregnancy Outreach Worker to other services is a measure of the decrease in isolation of women through the promotion of health and treatment-related interventions. In accessing supportive health and treatment services, women demonstrate efforts to make significant changes in their lives as they begin to plan for themselves and their expected infants. Table 17 below summarizes the referrals from the BTC Pregnancy Outreach Program to the community services:

Table 17: Referrals to the Community Services (N = 160)

	Percent
Breaking the Cycle/BTC Satellite Program	50
Prenatal/Health Care Provider	72
Withdrawal Management/Addiction Treatment	39
Hostel/Shelter	29
Child Welfare	17
Community Agency	11
Other	6

Compared to CPNP participants nationally and provincially, a significantly higher percentage of BTC participants were referred to services related to physical/emotional and sexual abuse (7% vs. 3% vs. 29% respectively, $z = 2.28$, $p = .02$, and $z = 3.68$, $p = .0002$ respectively) as well as to drug treatment services (2% vs. <1% vs. 14%), $z = 9.17$, $p < .0001$, $z = 13.83$, $p < .0001$, respectively. Eighty per cent of women in the BTC Pregnancy Outreach Program followed through with an average of one referral.

Further, a significantly higher proportion of BTC women were likely to have had 20 or more postnatal contacts as compared to CPNP participants nationally or provincially (11% vs. 2% vs. <1%), $z = 2.06$, $p = .04$ and $z = 2.98$, $p = .003$, respectively.

3. Completion of treatment/intervention plans

In comparison to pregnant women entering BTC pre-2001, there were trends for pregnant women who entered through the BTC Pregnancy Outreach Program to be more likely to complete treatment/intervention plans. For most pregnancy outreach clients, treatment plans included three components: accessing addiction services (detox or treatment); accessing prenatal care; and securing housing. These findings confirm the efficacy of a proactive outreach model in engaging and intervening with pregnant women using substances, and helping them access social determinants of health.

4. Custody of children

In comparison to pregnant women entering BTC pre-2001, there were trends for pregnant women who entered through the BTC Pregnancy Outreach Program to be more likely to have custody of their children at discharge from BTC. Earlier engagement in services, coupled with higher rates of completion of treatment/intervention plans, combine to result in mothers being significantly better prepared for their mothering role by attending to their own health, by accessing appropriate housing and by addressing their substance use. This is an important outcome that signifies the enduring impacts of the BTC Pregnancy Outreach Program into the early childhood period.

There were also trends for mothers who entered BTC through the Pregnancy Outreach Program to be more likely to have contact with their children at discharge, whether or not they had custody of the child.

5. Maintenance of recovery

In comparison to pregnant women entering BTC prior to 2001, there was a trend for pregnant women who entered through the BTC Pregnancy Outreach Program to be maintaining their recovery from substance use at discharge from BTC ($p = .07$)

3.2.5. Focus Group Data

Focus group interviews were undertaken with BTC mothers to assess client satisfaction, as well as to deepen our understanding of some of the quantitative data in this evaluation. Historically, information attained from focus groups has been used to modify programs and services to better meet the needs of BTC families. Three separate groups of women were interviewed in April 2005: one group of women from the BTC Pregnancy Outreach Program ($N=5$); one group of women who had recently been transferred to ongoing/active service at BTC ($N=7$); and one group of women who had been transferred to ongoing/active service at BTC more than one year prior to the focus group ($N=7$). Women were recruited for the focus groups through a voluntary sign up sheet at BTC. Sign up sheets and BTC staff provided women with information about the purpose and procedure of the groups. On-site child care was provided to women who required it; in addition, women were reimbursed for their time with a \$10 grocery store voucher. The duration of each group was approximately 90 minutes. Focus groups were conducted by clinical-

researchers who were part of the evaluation team and who were not responsible for any direct service at BTC. Women were assured that their answers would be confidential and that no identifying information would be provided to BTC staff. Focus groups were audio-taped and the tapes were transcribed by a professional transcriber who was independent of the BTC program (i.e., she did not know any of the participants). Qualitative data obtained from the focus groups are integrated throughout this report. Focus group questions are included in Appendix 2.

Focus group respondents from the BTC Pregnancy Outreach Program provided qualitative information regarding factors related to their satisfaction and progress in the Program. They highlighted counsellor characteristics, qualities of the relationships they developed with the BTC Pregnancy Outreach Worker, as well as characteristics of the program that they felt made a difference to them. They also provided information regarding program promotion and motivation.

The importance of relationships: transforming relational capacities

Focus group respondents identified characteristics of their relationship with the BTC Pregnancy Outreach Worker that they felt were facilitative for them. These included respect, understanding, authenticity, mutual empathy and reciprocity. Mutual empathy in a relationships enables women to know that they can have an impact on the world, specifically on the people with whom they have relationships, and that relationships may be negotiated. Because this sense of impact may have been missing in relationships they have had in the past, it is seen as an important corrective or transformative experience in that it contributes to women's sense of empowerment and to the counsellor's capacity for new learning (Walker et al., 2004).

If there is something that makes you feel uncomfortable, you can just tell her straight up. You know how some people can get defensive and all aggressive? She won't, like literally, she won't...I'm the kind of person that does need to be challenged to express my feelings and so I would get upset and she said you know... "tell me to fuck off whenever you need to", you know? And she's like "I totally don't mind". Because she knows that I need to be challenged but also, you know, if I don't tell her where my point is, she doesn't know where it is either. She'll do what I like her doing, which is challenging me, but sometimes I can't handle it, and I just say "You know what, I've got to drop this for now" and she'll drop it, and we're on to another subject right away.

Yeah, that happened to me too, actually, because there's things I've got to do and because I came into the program so late – I'm due in less than a month – and she was saying "Okay we're going to do this", just telling me our plan, but I was getting overwhelmed and I said "Okay wait, we'll do this", and she said "Okay no problem. I'm going to put it in my agenda and when you're ready to talk". And then the next time I saw her I said, "Okay I'm ready for the next step now", right, but yeah, honestly if you just tell her it's too much...

Well you know the thing with (the BTC Pregnancy Outreach Worker) too, is that she was very patient. Because like I wasn't a treatment person, I was a person who was not going to go to treatment. Because I had quit many times – not many times, but enough times that I could do it without treatment. But the thing is, you know, she would subtly bring it up. She wouldn't question it, but she would bring it up. So, and the fact that she didn't question it, and was more suggestive of it, eventually I ended up going into treatment.

Qualities of the Pregnancy Outreach Worker

Respondents identified respect, recognition and acknowledgement as meaningful components of the growth-promoting relationship they experienced in the BTC Pregnancy Outreach Program. Respect is the foundation of mutual empathy, and movement out of isolation into growth-fostering relationship. Mutual empathy is at the core of relational resilience, and is responsible for movement from disconnection to connection.

*And you can see (the BTC Pregnancy Outreach Worker) has genuine respect, and that is really, really nice to see because other workers would sit and go "We're doing what we're supposed to do. What do you think-- you spread your legs, you got pregnant, now you're taking care of it, that's what you're supposed to do, so what do you want, a pat on the frigging back?". I'm **not** supposed to be doing that, I'm supposed to be out doing my drug of choice and having a good time and the world revolves around me. I'm not supposed to be here, having a baby and doing good. So me being here, yeah, I deserve a pat on the back. Damn right. Really. And when someone acknowledges that and goes "Right now, you're doing the right thing". I really need to hear that. Really.*

Women noted the importance of feeling truly known by another person in a relationship – and to be known as a whole person, and not just as a substance user. To be known in a compassionate, caring way, in which difficulties and perceived failings can be known and understood (“nobody’s perfect”) was important. And, for the respondent below, the capacity of the pregnancy outreach worker to understand the impact of isolation and disconnection deepened their relationship.

*I've been with her when I was clean, when I relapsed, when I went through treatment ... she's loving, she's caring, she's compassionate, she's understanding, she's patient, she's challenging when need be. She has no bias, she has no judgement, she has resources. As a person, you know she just has respect. Not only understanding the respect, but when you go further ... she's understanding of human nature and how people are regardless of whether they have addictions or not... That, you know, nobody's perfect .. **and then you throw in isolation, and the fact that she understands that category just takes it into depth.** (emphasis added)*

Like she really does listen to you. She listens to what you say. And she remembers. And I assume that she probably talks to all of us, but when she comes to talk to you, she remembers what you said last week and it's not written down in a book. She knows you as a person.

Characteristics of the BTC Pregnancy Outreach Program

Although not all women indicated that the street outreach component of the program was critical to their participation, others spoke about the importance to them of being able to meet the BTC Pregnancy Outreach Worker in the community. The following respondent indicated that, for her, the outreach model contributed to the development of her relationship with the pregnancy outreach worker.

*I like that she'll meet me, just because it motivates you...For myself, being an addict, sometimes you need somebody to come to **you**, and help you, because maybe – I don't know if I'm making sense or not – but being an addict, sometimes you'll make appointments and cancel. And I'm fresh into recovery, and can't wait to meet her there, it's like she's going to be there, she's going to be there, which is really helpful because it's motivating. And then you feel more like she's a friend also, somebody to talk to, so it's nice to meet outside, not like "Oh I have a doctor's appointment, it's going to last half an hour". It's friendly, it's nice... talking to her, she really does care, right? (emphasis added)*

The BTC Satellite Group clearly meets a need for affiliation and relationships among women in similar situations, and is critical to decreasing feelings of their isolation and disconnection. The fact that the group is directed to pregnant substance-using women creates a safe environment in which women feel understood by others, and where they can provide understanding to others.

The flexibility of this group is that we all get to learn things but also, there are times when women come in here and they're up to here ready to cry, and if it's another group, there's no way everyone would stop for them, they wouldn't just stop for that one person, they would keep going. But here you can stop, just for that one person ... each person is understanding. Like that's the whole thing about being an addict and understanding that, not just as pregnant women but as addicts you need to come in here and express yourself when you need to, you know.

You almost feel like there's no other place for addict women, who really need each other.

Because I'm not going through anything unusual at all. Like everything I've said or did or worried about or anything, someone here has the exact same thing.

The strong and pervasive theme of isolation among this population of women is poignantly threaded through the comments below, and underscore the sociodemographic data presented above.

And I'm so alone, and being pregnant, and having a baby, and it's very natural and all that jazz, but it's really huge, but again I'm alone, right, so it's like really hard. I'm not the only one, women are having babies everywhere. Yeah, it's really nice, you know?

Just that I'm not alone, out there, walking around, alone. Because when I leave here, I'm going to walk out there, alone. But now I have the women here, and I'm happy with that.

Focus group participants identified the differences between this group and other prenatal groups they may have attended. Particular benefits of the BTC Satellite Group included the flexibility for individual responsiveness due to the small size of the group and the importance for the option of individualized support for women facing complex risk conditions.

I went to try and go to one other group, and the thing is there were so many women that there was no way I would have gotten what I get out of this one. Because the other thing with this group too, is that it's flexible enough that need be, if I need to talk, I have the opportunity to talk and I get the one-on one. I do a lot of it. (Laughter). But I do listen too...because everybody does need to talk.

Another participant alluded to the importance of a structured group with facilitation rather than a “drop-in” format:

Yeah, you go there and they give you a couple of tokens, a blue voucher and you just sit, hoping someone's going to come in and go “okay, ladies! Today we're going to ...” But nobody ever came in for that. So I only went to three of those meetings.

Some women identified the benefits of a specialized program directed to women with substance use problems versus a generic community-based prenatal program.

You can go to a group where people are pregnant but when they're addicts, it's far better to come here where others have your problem, and it's nice to have another addict to talk to...

We understand each other a lot more and there's no judgement, so we can say whatever the heck we want to say.

Some women identified the commuting distance to the hospital-based group as a challenge.

It's pretty hard for me because of where I live ... so that's pretty hard for me. If there was another group near where I live.... I don't know. I don't know what happened with the subway, it stopped for like fifteen, twenty minutes, and I was like oh, no. It is a distance for me to come. It is.

The majority, however, did not find distance to be a barrier, despite the fact that they needed to plan ahead and travel. In response to questions about problems with distance or location, the following responses were more representative:

None for me, it's very convenient, relaxing. I hop on the streetcar. I like the trip.

Actually for the meetings, I actually get up an hour earlier. I'm excited to come here. I don't know why, though, it's helping me. Like today I came half an hour early you know, and I'm reading my newspaper, and I go home and I learn things from this group, not just about pregnancy but about life. So I love this group. It's helped me make a big change in my life.

In response to queries regarding locating the group in a hospital versus in a community-based agency, the only negative comments focused on the fact that smoking was prohibited in the hospital, and the smoking area was a distance from the group meeting room.

Focus group participants identified aspects of the group that were helpful or informative. Responses included the fact that it is a combined prenatal/relapse prevention group; that it is gender-specific; that it offers an opportunity talk to other women in similar situations; and that it facilitates honesty.

To talk to the women about your baby and your addiction.

Some women have men there, their partners too. I don't like that. I prefer just the women, because men are trouble.

I used to come here when there was nobody else, so afterwards it was nice to come here because I got to listen to other people. I mean it was nice because there was a place I could come to where I could just talk, and then after, I got to listen to other people and hear what they were going through, you know? And that was helpful? Absolutely. Because then it's not always me talking, me in my head, me and my problems. It's other people's problems and they're similar so I mean it's easier to ... it's not an avoidance issue, but to hear other people going through the same crap.

There's no, you know, secrets. It's been my backbone.

Focus group participants were asked to identify aspects of the program that could be improved. Their suggestions included maintaining a balance between the prenatal and relapse prevention content in the group and the inclusion of a session on preparation for labour and delivery (breathing and positions).

I've been here from the beginning and (the co-facilitators) are finding a balance about when to bring in relapse and when to bring in pre-natal. But one thing, like the relapse is really good, it's gone down. And what they're doing is alternating now, like in one session half is prenatal and half is relapse prevention, and it's just switching over to this now, and it's looking better and improving that way, because I wasn't getting enough prenatal that I needed to get, so if they're going to continue along those lines, it'll probably make a big difference.

It could always be a little bit more accommodating, as in comfortable...But again, that's all about funding, and if you get more funding I'd rather the money go elsewhere than chairs with armrests, right?

Focus group participants were asked to discuss barriers to engagement of women in the BTC Pregnancy Outreach Program, and some made suggestions regarding increased promotion of the program. All of the respondents recognized that there were many women in downtown Toronto who are pregnant and substance-involved, who do not know about BTC, and who are not receiving the services they need:

Everyone knows that there's a ton of people – well there is tons of people, with addictions, and are pregnant, but the thing is, most people are sheltered, isolated and don't know.

...maybe put the word out a little more. I didn't even know it's (BTC) down the street from where I've been hanging out for two years...And then I walked into my friend who said "you should go check out Breaking the Cycle" so I went over here and checked it out...Like I didn't even know this was there and it's perfect.

Other women, however, recognized the limitations of professional promotion and the power of women like themselves to reach and inform those women with whom they have contact. They also recognized that women's readiness to change was a critical factor in the outcome.

And it takes people like us to actually let people know. My friend gave me (the BTC Pregnancy Outreach Worker's) card and that's it, it was up to me.

Ask (the BTC Pregnancy Outreach Worker) for some cards and then you can just give them the card and say, "That's the person I was talking about", and then leave it up to them. That's what my friend did with me, and it took me a while before I actually did call her, but because I had the card myself, I didn't have to re-ask, I called her one day, and she came and met me. And nobody knew, my friend didn't know I had picked up the phone, and so that made a difference for me – and this was my best friend, but that's just how I am.

I look at some of these women that are out there, and they don't care about the group, they just care about their addiction. They can have eleven, twelve babies, and still go out and get pregnant again. They'll have issues for life. And they hear about the program and they just don't want to come or meet (the BTC Pregnancy Outreach Worker). That's their choice, they don't want to come, they don't want to come.

That's why I said just to give the card, because then that way if they decide on their own time, because sometimes – because that's the thing with addictions, too – because we don't know what we think in each other's heads, and sometimes we do the same thing over and over again, and I know some women who are so shame-filled that they have used up until the very point just before coming in and delivering, and that's how far their addiction has taken them.

Part 3(b): Program Evaluation Breaking the Cycle (CAPC)

This section describes the methodology utilized and the results obtained in the evaluation of Breaking the Cycle (BTC). The methods section includes information regarding the number of families, the tools, and the procedures used to acquire information about BTC clients. These data were collected for two central purposes: the first reason was to attain a clinical understanding of the life contexts of mothers and children that the program serves in order to make appropriate assessment decisions and formulation about the families for the purposes of counselling and support; the second purpose was to evaluate the outcomes of families who utilize the program so that any necessary and appropriate changes to services could be made, based on empirical evidence. The evaluation was designed to assess changes in the following areas:

- Engaging women, mothers and children into service
- Improving health outcomes of women and mothers
- Improving maternal parenting outcomes
- Improving child health and developmental outcomes

Evaluation findings are organized in a manner that first presents a context of the lives of families through the use of service data and demographic characteristics and second provides outcome information regarding the areas of change described above.

3.1 Methods

3.1.1 Participants and Procedures

This evaluation is based on data collected from May 1995 to May 2005. During this period of time, BTC provided service to 615 mothers and their children. In addition, BTC was indirectly involved in the provision of services to approximately 330 other families who did not meet minimal criteria for admission, but for whom referrals to more appropriate programs were made.

The intake phase of service at BTC is designed to: 1) provide information to women and mothers regarding the BTC program; 2) collect information from mothers and children in order to assess the appropriateness of BTC to meet their needs; 3) provide case management and crisis management services to families as required; 4) offer an opportunity for mothers to establish relationships that facilitate their engagement in the program on a long term basis.

Given the frequency of mothers' difficult histories with service providers, together with the initial ambivalence that may be present regarding commitment to service, the investment of time in establishing a foundational relationship is critical for this population of women and mothers. This period of intake/assessment and engagement may take between six weeks and six months. Families may not move beyond the intake phase of service into ongoing/active service for a variety of reasons, including: 1) mothers decide that they do not wish to continue in service; 2) mothers and children are referred to other programs that more appropriately meet their needs; 3) there is a change in the plan for the mother to parent her child; 4) mothers have no contact with BTC for a period of three months or longer.

The ongoing/active phase of service follows a formal transfer from the intake phase of service through a process that includes the development of goals and plans with the mother for herself, her children and their relationship. The commitments of the mother as well as of her counsellors are confirmed in a written Individual Family Service Plan. During the active phase of service, mothers and children receive a comprehensive range of addiction services, parenting programs, and child health and development services.

3.1.2. Measures

The measures described in the evaluation were selected based on their usefulness in obtaining both clinical and research information. All information elicited from women and mothers was used as a part of the intervention process. All measures, except for the Intake Form and Discharge Form, were administered to mothers every six months during their involvement at BTC. All tools were administered in a clinical interview format, except for the Discharge Form, which was completed retrospectively by BTC staff. A description of each measure follows:

BTC Intake Form. The Intake Form was completed through a clinical interview with the woman/mother by two BTC clinicians, one who focused on the maternal component of the Form and one who focused on the child and mother-child relationship component of the Form. The first component of the Intake Form examined general demographics about the family including the mother's age, maternal relationship status, maternal education, family income level, family living arrangement and accommodation, number of children, and pregnancy status. Mother's, trauma and abuse history, substance use history, current substance use, past and present legal problems, and emotional/psychological health were also identified.

The second component of the Intake Form examined factors more specific to the children, including age, sex, custody, and separations from their mothers. Various prenatal risk factors were examined for the children, including type and number of substances to which they were exposed prenatally, as well as frequency, duration, and time of prenatal exposure. Information about labour, delivery, and child welfare intervention was also gathered, in addition to information about the child's health and developmental history. Finally, this component of the Intake Form gathered information about the mother-child relationship including data about schedules and routines, frequency and quality of parent-child interaction, behaviour management strategies, and maternal perceptions of parenting. Clinical impressions of parent-child interactions are also recorded.

Battelle Developmental Inventory – Screening Test (BDI). This standardized instrument (Newborg et al., 1984) assesses key developmental skills of children from birth to eight years. The test can be administered in 10 to 30 minutes depending on the age of the child and was designed for administration by teachers, special educators, speech pathologists, psychologists, and clinical diagnosticians. The intended purposes of the BDI include assessment and identification of the handicapped child; assessment of the non-handicapped child; and planning, instruction, and evaluation of groups of handicapped children.

The BDI was administered in the presence of the child's mother and some of the items are completed by maternal report. Domains of development assessed using the BDI include: Personal-Social, Adaptive, Motor (Fine and Gross), Communication (Expressive and Receptive), and Cognitive. The number of items administered in each domain depended on the age of the child, as tasks become progressively more complex throughout the inventory. For example, a six-month old child may only complete two or three items of a particular domain, whereas an

eighteen-month old child may complete five or six items of the same domain. The BDI Screening Test comprises 96 items within the five domains.

Descriptions of the contents of the domains are as follows:

- *Personal-Social*. This domain assesses abilities and characteristics that allow children to engage in meaningful social interactions.
- *Adaptive*. This domain examines self-help skills, which allow children to become more independent in their lives, and task-related skills, which involve children increasing their attention span, assuming personal responsibility for their actions, and initiating purposeful activity.
- *Motor*. This domain assesses children's ability to use small and large muscle groups and is divided into fine and gross muscle sub-domains.
- *Communication*. This domain is divided into receptive and expressive language subdomains. The receptive sub-domain can be classified into discrimination and meaning, while the expressive sub-domain can be classified into sounds, grammar/rules, and meaning/usage.
- *Cognitive*. This domain measures children's conceptual skills and abilities.

Parental Stress Index (PSI). Developed by Abidin (1990), this screening and diagnostic instrument identifies parent-child systems under stress, dysfunctional parenting, and the development of social-emotional problems in children.

The PSI has been validated on a substance-using parental population. Previous research indicates that mothers who used drugs during pregnancy experienced significantly more parenting stress than did either foster mothers of prenatally drug-exposed children or a group of similar SES others whose children were not prenatally drug-exposed (Kelley, 1992). When assessed using the PSI long form, mothers of prenatally drug-exposed children scored significantly higher than the SES comparison group on the Parent Domain, Demandingness, Competence, Isolation, and Attachment sub-scales.

Test-retest reliability was assessed using a sample of 270 participants over a six-month period. Test-retest reliability ranges from .68 to .85 for the three main sub-scales and the Total Stress sub-scale. Coefficient alpha was calculated on a sample of 800 participants and ranged from .85 to .91. The PSI short form was validated against the long form with a Total Stress correlation of .94 and a test-retest reliability rate of .95, both of which are exceptionally high (Abidin, 1990).

The sub-scale components which comprise the PSI are as follows:

- *Defensive Responding*. This sub-scale examines the extent to which the respondent attempts to minimize the degree to which she is affected by distress as measured by the questionnaire. Scores over the 85th percentile indicate that the respondent may be trying to over-represent the amount of distress they are experiencing. Scores under the 15th percentile may suggest one of the following: (a) the parent is attempting to under-represent the amount of distress they are experiencing to appear more competent and capable of handling the stresses of parenting well; or (b) she is not investing in the parent-child relationship and is, therefore not experiencing the normal stresses associated with this interaction.
- *Total Stress*. This sub-scale was designed to assess the amount of overall stress experienced by the parent in the three subscale areas. It is suggested that scores over the 90th percentile indicate clinically significant levels of distress and should be either closely monitored or referred for further diagnostic study.

- *Parental Distress.* This sub-scale examines the amount of stress the respondent is experiencing with respect to her parenting role. The component stresses assessed by this subscale include: impaired sense of parenting competence; stresses associated with the restrictions placed on other life roles by parenting responsibilities; conflict with the child's other parent; lack of social support; and depressive feelings.
- *Parent-Child Dysfunctional Interaction.* This sub-scale assesses the parent's perception of her interactions with her child, as well as satisfaction with these interactions. High scores indicate parental dissatisfaction in interactions with child and can indicate a threat to the parent-child bond. Scores over the 95th percentile may suggest the potential for child abuse especially when the scores of the three main sub-scales are all above the 90th percentile.
- *Difficult Child.* This sub-scale focuses on behavioural characteristics of children that may cause parents to perceive them as difficult to manage. In cases where parents indicate scores higher than the 95th percentile, child psychopathology should be assessed (Abidin, 1990).

Alcohol Dependence Scale (ADS) and Drug Abuse Screening Test (DAST). The Alcohol Dependence Scale (Skinner et al., 1984) provides a quantitative measure of the severity of alcohol dependence consistent with the concept of the alcohol dependence syndrome. The 25 items cover alcohol withdrawal symptoms, impaired control over drinking, awareness of a compulsion to drink, increased tolerance to alcohol, and salience of drink-seeking behaviour. The ADS is widely used as a research and clinical tool, and studies have found the instrument to be reliable and valid (Skinner 1982). The Drug Abuse Screening Test (Skinner 1982) is designed to 1) provide a brief, practical and valid method for identifying individuals who are abusing psychoactive drugs; and 2) to yield a quantitative index score of the degree of problems related to drug use and misuse. This 20-item instrument may be administered in either a self-report or in a structured interview format.

BTC Discharge Form. The Discharge Form is completed once a mother has been discharged from either ongoing service or active intake. Case managers complete the discharge form in consultation with other clinical staff at BTC. This form documents information on: length of service use, types of BTC services used, community supports used, referral source, presenting concerns at intake, BTC programs and services used, other community services used, attendance at BTC, reasons for discharge, and any concerns present at discharge.

3.1.3. CAPC Regional Evaluation: Mandatory Tools

As an Ontario CAPC project, BTC participated in the CAPC Regional Evaluation between October 2003 and June 2005. The CAPC Regional Evaluation required the administration of specific tools in the program evaluation process. These measures assess: parenting skills and parenting sense of competence, maternal postnatal attachment, child development, maternal social support, and knowledge of and access to services. At BTC, the questionnaires were administered in an interview format by a clinical staff member at intake and at eight months after intake. The following is a description of the individual CAPC tools administered:

Parenting Sense of Competence Scale. This scale measures mothers' feelings of competence in the parenting role. It comprises two subscales assessing parenting efficacy and parenting satisfaction. (Gibaud-Wallston & Wandersman, 1978)

Maternal Postnatal Attachment Scale. This questionnaire is intended to measure the mother-to-infant attachment during the first year of the child's life. It includes 3 subscales measuring quality of attachment, absence of hostility, and pleasure in interaction. (Condon & Corkindale, 1998).

Social Support Behaviours Scale. This scale measures the extent of social support received by mothers from family and friends. It provides subscale measures of the extent of support in: emotional support, social contact, practical assistance, financial assistance, and advice/guidance.

Knowledge of Services Questionnaire. The measure is administered at eight months following admission to the program. The questions in this scale ask the mothers to rate how much their involvement in the program facilitated their knowledge of and confidence in using services in the community.

Data on the CAPC measures were available for a sub-sample of women from the BTC program; those who participated during the period of the evaluation (October 2003 - June 2005). These findings are based on a sample of 17 women and their children for whom entry and exit measures were completed. Outcomes on the CAPC measures are presented within the context of the overall evaluation.

3.1.4. Focus Groups

Focus group interviews were undertaken with BTC mothers to assess client satisfaction, as well as to deepen our understanding of some of the quantitative data in this evaluation. Historically, information attained from focus groups has been used to modify programs and services to better meet the needs of BTC families. Three separate groups of women were interviewed in April 2005: one group of women from the BTC Pregnancy Outreach Program (N=5); one group of women who had recently been transferred to ongoing/active service at BTC (N=7); and one group of women who had been transferred to ongoing/active service at BTC more than one year prior to the focus group (N=7). Women were recruited for the focus groups through a voluntary sign up sheet at BTC. Sign up sheets and BTC staff provided women with information about the purpose and procedure of the groups. On-site child care was provided to women who required it; in addition, women were reimbursed for their time with a \$10 grocery store voucher. The duration of each group was approximately 90 minutes. Focus groups were conducted by clinical-researchers who were part of the evaluation team and who were not responsible for any direct service at BTC. Women were assured that their answers would be confidential and that no identifying information would be provided to BTC staff. Focus groups were audio-taped and the tapes were transcribed by a professional transcriber who was independent of the BTC program (i.e., she did not know any of the participants). Qualitative data obtained from the focus groups are integrated throughout this report. Focus group questions are included in Appendix 2.

3.1.5. Design Limitations

Although the design has evolved over the ten years that BTC has been evaluated, there are some inherent limitations in conducting clinical research which we acknowledge:

Limited Objective Substance Use Data. An extensive substance use history (based on maternal self-report) is taken at intake. Substance use is also monitored via maternal self-report throughout the mothers' involvement at BTC. BTC originally planned to use the Inventory of Drug Taking or Drinking Situations (IDTS) as an objective measure of substance use, but an early assessment of this measure revealed that it did not provide reliable data on a sufficient number of clients. The addition of the Alcohol Dependence Scale (ADS) and the Drug Abuse Screening Test (DAST) has been more helpful both clinically and for research purposes.

Use of Self-Report Measures. As is noted in previous BTC reports, this evaluation is based heavily on information supplied by clients. The validity of self-report measures can be affected in two ways: 1) women may underreport problems if they are concerned about legal ramifications, confidentiality, or moral judgments being placed on them; 2) women may over-report problems if they are trying to attract service attention to themselves or their children. Given the profiles of the BTC families and their histories of social service involvement, we expect that mothers are likely to underreport their problems. Self-report questionnaires were deemed to be the most useful measure, but their limitation should be noted in interpreting these data. Through the use of motivational interviewing and a non-judgemental approach to eliciting information, BTC clinical staff attempt to assist women in being as honest as they are able.

No Control Group. The lack of a control group with which to compare the results of outcomes has been a consistent limitation in BTC evaluations, past and present. The primary reason for this exclusion relates to the ethical concerns involved in randomly assigning women with such high needs to the BTC treatment or to a not treatment, attention only, or waiting list control group. The BTC Steering Committee has deemed reducing or limiting services to a proportion of families as unethical. In future research, we will be comparing the BTC program, with its focus on parenting, with another program for substance-using women that does not have the parenting focus.

3.2 Results

3.2.1 Service Data

In total, 1170 mothers and 1781 children received service at BTC during the 10-year evaluation period. This is an average of 117 mothers and 178 children served per year. These mothers and children have accessed a wide range of potential services provided to BTC families including pregnancy outreach services, case management services at referral, intake-only services, and ongoing/active services. Therefore, as of May 2005, families had accessed service from BTC in the following ways:

Pregnancy outreach services ⁵ :	225 families
Case management services at referral:	330 families
Intake-only services:	282 families
Ongoing/active services:	333 families
TOTAL NUMBER OF FAMILIES	1170

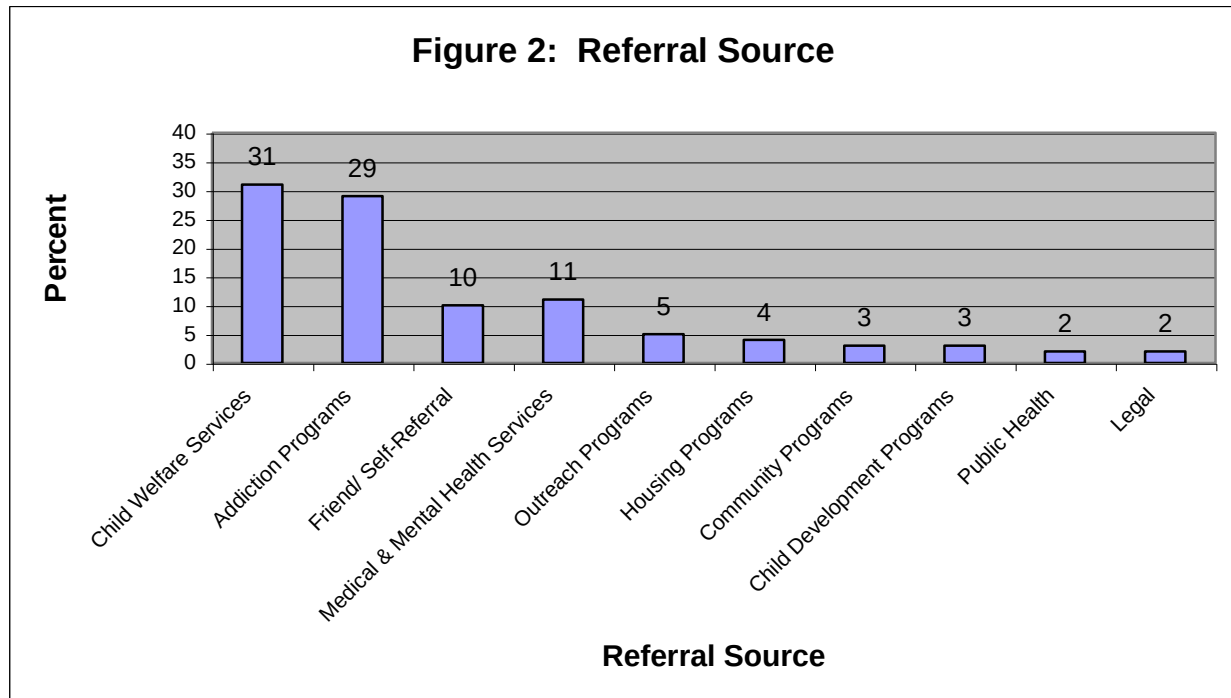
Deb: Help me understand. Is this an absolute number, or could a family be counted twice? Mary, can you make sure the reader isn't confused by these numbers? I think that the only the pregnancy outreach clients might be counted twice.... Can you make this be more clear?

Of the 333 families who accessed ongoing service at BTC and who have closed files, 13% of them (n=36) returned at a later date and thus their files have been closed on two or more occasions. Of the women whose files have been closed once and for whom we have data, the average length of time in the program was 12 months ($SD = 9.1$ months) with a median of 9 months. Of the women whose files have been closed on two occasions and for whom we have data, their average length of time engaged in the program for the first time was 9 months and for the second time was 10 months. Therefore, women who engage at BTC are receiving an average

⁵ Since 2001, when the BTC Pregnancy Outreach Program received funding through CPNP.

of 12 months of service. Those women who are returning to the program are receiving an average of 19 months of total service.

3.2.2. Referral Sources



The referral sources for the women who were referred to BTC are shown in Figure 2 above. In total, there were over 50 referral sources, which indicates a high level of awareness of BTC amongst community-based and institutional service providers across sectors.

Forty-six percent (46%) of referrals to BTC were from its seven partner agencies, with child welfare partners accounting for the largest proportion (73%) of the partner referrals. Other Toronto addictions sector agencies (i.e., treatment and withdrawal management centres) referred approximately 25% of clients. Positive promotion, through self-referral, referral by another client/family/friend continues to represent approximately 10% of all referrals.

In those cases in which women referred did not move beyond the intake phase of service (“intake only”), 92% of referrals from partner agencies were from child welfare partners. While referrals by child welfare may be initially experienced by many women as non-voluntary, there was no significant difference in rates of “mandated” referrals⁶ between those who did not move beyond intake (10%) and those who did move into ongoing service (17%).

⁶ “Mandated” referrals were defined as those in which attendance at BTC is a requirement of a court order.

3.2.3 Sociodemographic Characteristics⁷: Engaging the Target Population

The sociodemographic profile of the women served confirms that BTC is engaging and serving a very high risk population of mothers whose substance use problems co-occur with high rates of early childhood trauma including sexual, physical and emotional abuse; high rates of psychological and medical problems; and high rates of domestic violence and substance use by spouses or partners in their adult relationships.

Maternal Age

The distribution of mother's age is provided in Table 18. The average age of mothers in the BTC sample is 29 years (SD = 6.6; range 15 – 48 years). Eighty- five percent report that they are Canadian-born and 18% identify as aboriginal women.

Table 18: Age of Mothers (N = 17)

Age in Years	Percentage
15-20	12
21-25	20
26-30	22
31-35	27
36-40	15
40+	4

Maternal Maltreatment and Trauma

BTC mothers reported high rates of childhood maltreatment. For many, exposure to maltreatment, violence, and exploitation appears to extend into their adult relationships with partners, friends and others.

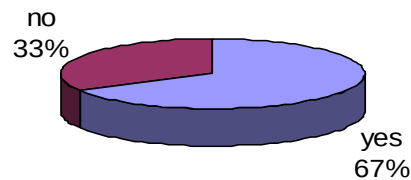
- **Sexual abuse:**

As indicated in Figure 3, 67% of mothers who answered this question (n = 217)⁸ report histories of sexual abuse. For those reporting sexual abuse histories, the onset of the abuse for three quarters of the women (82%) was 16 years and younger. Based on the information of mothers who identified the perpetrator, 36% of the perpetrators of the sexual abuse were identified as family members, and approximately 50% were identified as “various”. Various perpetrators often refers to women who were sexually abused early in life by family members and have continued to become involved in adult relationships with sexually abusive romantic partners or who have engaged in sex trade work.

⁷ The CAPC Regional Evaluation called for the collection of information regarding participant age, country of birth, and length of residency in Canada. The average age of mothers in BTC's CAPC Regional Evaluation sub-sample is 31 years (range 21 – 42 years). Eighty- three percent (83%) report that they are Canadian-born, and of those who were born outside of Canada (n = 4), they had lived in Canada between 18 – 35 years.

⁸ Variations in the “n” reflect the fact that the sample size varies among tables because mothers may have refused to answer questions that they did not want to discuss or that they found too sensitive.

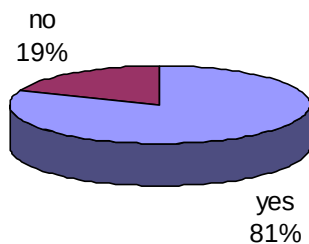
Figure 3: Sexually Abused (N=217)



- **Physical abuse:**

As indicated in Figure 4, 81% of mothers (compared to 88% of “intake only” mothers; n = 32) who answered this question (n = 226) reported histories of physical abuse. For women reporting physical abuse histories, the mean age of first occurrence was 14 years (median =15; SD = 8.5). Of the 171 women who revealed the perpetrator, their mothers were identified as the perpetrator in 38% of cases and their partner/ex-partner in 38% of cases.

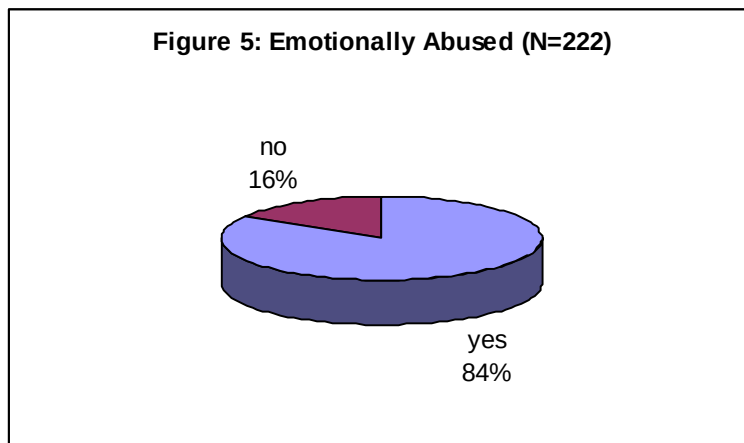
Figure 4: Physically Abused (N=226)



- **Emotional abuse:**

Eighty-four percent of mothers (compared to 87% of “intake only” mothers; n = 31) who answered this question (n = 222) reported histories of emotional abuse. For women reporting emotional abuse histories, 87% (70% of “intake only” mothers) reported that the onset of emotional abuse occurred when they were 16 years of age and younger (mean age = 11; median = 9; SD = 7.5). Of the 173 women who revealed the perpetrator, their mothers were identified as the perpetrator in 42% of cases; and their partner/ex-partner in 30% of cases. Forty-four percent of “intake only” mothers indicated that they had experienced emotional abuse from various perpetrators. This often included emotional abuse in childhood, usually at the hands of parents, and continued involvement in emotionally abusive relationships into adulthood, most often by romantic partners.⁹

⁹ Severity of trauma history was operationalized using the “cumulative abuse scale”, which was based on responses to intake questions related to sexual, physical and emotional abuse, and to the age at which the abuse occurred. A section



One hundred and sixty-four mothers provided information regarding receipt of treatment related to their trauma experiences. Almost half (42%) of these mothers reported that they had received treatment related to their abuse experiences, and 80% of those who had received treatment reported that they had found treatment helpful to them.

Maternal Psychological/Emotional Symptoms

BTC mothers reported ongoing or current experiences of mental health symptomatology that reflected ongoing distress. In response to questions at intake in which mothers were asked to identify symptoms or experiences they had within the prior six months, BTC mothers reported the following:

- **Flashbacks**
Almost half (45%) of mothers who responded to this question (n = 138) reported that they experienced flashbacks related to their early maltreatment/trauma experiences.
- **Amnesia**
Almost half (43%) of mothers who responded to this question (n = 216) reported that there were substantial periods of time in the past six months (e.g., hours, days, or weeks), apparently unrelated to their substance use (e.g., blackouts), of which they have no memory.
- **Tension/anxiety/nervousness**

of the BTC intake form asks clients to indicate whether they have a history of sexual, physical or emotional abuse and if so, to identify the age at which the abuse occurred. The cumulative abuse scale was created by summing responses to these items. Sexual, physical, and emotional abuse items were each coded dichotomously (0 indicating the absence of the specific type of abuse and 1 indicating the presence of abuse). The three abuse items were weighted based on the age at which the abuse occurred/began. A weighting factor of 1 was assigned if the abuse occurred when the client was older than 16 years of age and a weighting factor of 2 was assigned if the abuse occurred when the client was 16 years old or younger. These weighting factors were used because attachment theory predicts that the experience of abuse during childhood would have a more negative impact on the development of working models of relationships and social competence, which in turn influence a mother's parenting abilities

Almost ninety percent (88%) of mothers who responded to this question ($n = 217$) reported that they experienced tension and anxiety.

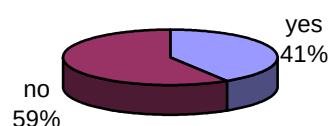
- **Depression**

Seventy-six percent (76%) of BTC mothers who responded to this question and who had moved into ongoing service ($n = 237$) reported that they experienced depression. It is interesting to note that a significantly higher proportion of “intake only” mothers (93%) who responded to this question ($n = 28$) reported symptoms of depression, $z=2.07$, $p=.04$.

- **Suicide attempts**

Figure 6 illustrates that, of 227 respondents, almost half (43%) reported that they had made suicide attempts (mean = 2 attempts; SD 1.9, range 1-15 attempts). A smaller proportion of “intake only” respondents (27%; $N = 22$) reported suicide attempts (mean = 1 attempt; SD = 0.9; range 1-3 attempts); however, this difference was not statistically significant, $z=1.44$, $p=.15$. Significantly more intake mothers reported thoughts of suicide (48%; $N = 27$) than mothers in ongoing service (21%; $N = 230$, $z=3.02$, $p=.002$).

Figure 6: Suicide Attempts (N=206)



- **Self-harm behaviours**

Of the mothers who responded to this question, one quarter (25%) of BTC mothers ($N = 192$) clients reported that they have engaged in self-harm behaviours. The most common self-harm behaviour reported was cutting or slashing. Sixty percent of the mothers in ongoing service, but only 20% of those who did not move beyond intake, reported that they had received some treatment related to their self-harming behaviours.

- **Fears/phobias**

Almost half (46%) of BTC mothers who responded to this question ($N = 219$) reported fears and phobias, and 36% ($N = 220$) felt that people were trying to harm them. Given the context of violence and risk in which many of the BTC mothers live, this feeling may not be unfounded.

- **Violent thoughts/feelings**

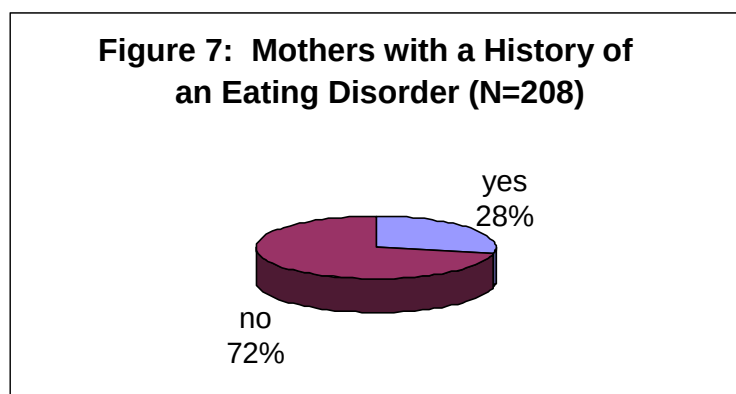
Over one-third (39%) of BTC mothers who responded ($N = 235$) reported that they have had violent thoughts/ feelings within the past six months. The percentage of “intake only” mothers reporting violent thoughts/feelings was significantly higher at 61%, ($N = 28$), $z=2.62$, $p < .01$.

- **Difficulty sleeping and eating**

Almost three quarters of BTC women (73%) who responded ($N = 222$) reported difficulty sleeping, and 69% ($N = 222$) reported difficulties with eating or a change in eating behaviour over the past 6 months.

- **Eating disorders**

Figure 7 illustrates that one quarter of BTC mothers (28%) who responded ($N = 208$) reported that they have a history of eating disorders (bulimia = 30%; compulsive overeating = 26%; anorexia 22%; multiple = 19%; other = 3%), and 27% of those reporting eating disorders had received treatment. Forty-four percent of BTC mothers who moved into ongoing service reported that their eating disorders were active ($N = 40$). The proportion of “intake only” mothers reporting active eating disorders was relatively higher at 75% ($n = 3$), although not significant, $z=1.35$, $p=.18$.



The general pattern of the rates of psychological/emotional problems reported indicates that the rates for the “intake only” mothers were almost always higher than those for women who moved into ongoing service. Of the *** domains examined, “intake only” mothers were significantly higher than “ongoing service” mothers on *** domains. **Mary ?** “Intake only” mothers reported higher symptom ratings with respect to depression, eating disorders, violent thoughts/feelings and thoughts of suicide. Among those “ongoing service” mothers who reported self-harm behaviours, only half had received treatment for these problems.

The severe histories of maltreatment and trauma reported by BTC mothers provide a context for understanding the use of substances by women and mothers in this sample. An understanding of the social and psychological context of maternal substance use informs the development of approaches, services and policies designed to support women, mothers and children who are substance-involved.

Maternal Substance Use

In the following section, we examine information regarding the use of substances in the mothers’ families of origin and by their partners, their own personal substance use history, their substance use status at intake to BTC, and their histories of addiction treatment.

Tables 19 and 20 below summarize the information reported regarding substance use in the mothers' families of origin and with partners:

Table 19: Substance Use in Maternal Family of Origin

Relationship to BTC Mother	% Who Use Substances	% Who Live with BTC Mother
Mother	50 (<i>n</i> = 254)	12 (<i>n</i> = 270)
Father	65 (<i>n</i> = 227)	6 (<i>n</i> = 260)
Sibling	50 (<i>n</i> = 208)	6 (<i>n</i> = 228)

The rates of substance use by members of mothers' families of origin point to intergenerational transmission of patterns of coping involving substance use. The data also suggest that there may be a significant proportion of BTC mothers who were themselves exposed to substances prenatally, and to substance-involved caregiving environments in their childhood.

Table 20: Substance Use by Mothers' Partner(s)

Relationship to BTC Mother	% Who Use Substances	% Who Live with BTC Mother
Present Partner	71 (<i>n</i> = 181)	38 (<i>n</i> = 208)
First Past Partner	81 (<i>n</i> = 155)	2 (<i>n</i> = 166)
Second Past Partner	79 (<i>n</i> = 56)	2 (<i>n</i> = 59)

Table 21 summarizes mothers' responses to questions regarding the quality of the relationships with their past and present partners. These data point to high rates of abuse and maltreatment in the adult relationships of BTC mothers. Of the 150 respondents who described the quality of their relationships, 42% reported that their present relationship was abusive, and 51% (*n* = 94) reported that their previous relationship had been abusive.

Table 21: Description of Partner Relationship(s)

Relationship	% Good/Supportive	% Fine/OK	% Difficult/Poor	% Abusive
Present Partner (<i>n</i> = 150)	33	9	17	42
1st Past Partner (<i>n</i> = 94)	16	24	9	51

Maternal Substance Use History and Status

Given the program's mandate, all mothers who attend BTC have had a personal history of substance use. The most common substances used by mothers were alcohol, cannabis, nicotine, crack cocaine and cocaine. Table 22 below provides an overview of mothers' substance use histories, including substances used, age at onset, and information regarding the substances mothers were using at intake to BTC. With respect to substance use at intake, the table examines current substance use of those women who subsequently moved into ongoing services, and those who did not move beyond the intake phase of service.

Table 22: Maternal Substance Use History

Substance	% Who Have Ever Used	Median age of First Use in Years	% Using at Intake (of those who have ever used and who moved into ongoing service)	% Using at Intake (of those who have ever used and who did not move into on-service)
Alcohol	97 (n = 261)	14 (sd = 3.6)	57 (n = 215)	78 (n = 28)
Cannabis	90 (n = 259)	14 (sd = 2.4)	49 (n = 156)	58 (n = 24)
Nicotine	89 (n = 253)	13 (sd = 2.8)	93 (n = 219)	100 (n = 27)
Crack	67 (n = 253)	20 (sd = 6.4)	64 (n = 143)	85 (n = 20)
Cocaine	62 (n = 252)	19 (sd = 5.0)	35 (n = 106)	57 (n = 14)
Hallucinogen	49 (n = 271)	16 (sd = 3.4)	21 (n = 58)	30 (n = 10)
Tranquillizers	34 (n = 254)	20 (sd = 6.7)	35 (n = 218)	75 (n = 4)
Heroin	29 (n = 253)	21 (sd = 5.4)	37 (n = 214)	30 (n = 10)
Anti-depressants	26 (n = 251)	26 (sd = 7.8)	59 (n = 22)	25 (n = 4)
Amphetamine	23 (n = 249)	17 (sd = 4.4)	11 (n = 27)	0 (n = 1)
Prescription drugs ¹⁰	18 (n = 247)	20 (sd = 9.4)	50 (n = 22)	50 (n = 4)
Barbituates	19 (n = 248)	20 (sd = 7.8)	19 (n = 26)	50 (n = 2)
Inhalants	12 (n = 249)	14 (sd = 3.2)	21 (n = 14)	0 (n=0)
Other substances ¹¹	15 (n = 249)	20 (sd = 6.4)	62 (n = 24)	100 (n = 2)

Mothers reported that they first used their substance of primary addiction at a mean age of 19 years (median = 17; *SD* = 5.8), and that it first became a problem at a mean age of 21 years (median = 20; *SD* = 6.3). As the average age of BTC mothers was 29 years, the average length of use among this sample of women was approximately 10 years.

The data confirm that a significant percentage of mothers are still using various substances when they initially attend BTC. In combination with the trauma data, these substance use findings highlight the complex psychosocial conditions of risk with which BTC mothers present at intake.

These data lead to a number of program implications: 1) they confirm the importance of reducing barriers to service for pregnant and parenting women using substances, and highlight the importance of harm reduction approaches which do not require abstinence for admission to

¹⁰ "Prescription drugs" include Gravol, Nytol, Tylenol with codeine, and cough syrup

¹¹ "Other substances" may include non-beverage alcohol (e.g. mouthwash, cooking wine)

service; 2) they highlight the importance of an integrated model of care that allows for the careful assessment of the impact of maternal substance use on parenting capacity, in partnership with child welfare; 3) they highlight the need for intensive intervention and treatment for the mother and infant, including addiction treatment, parenting intervention, child developmental monitoring and support, and health/medical care.

The data also confirm that the “intake only” mothers reported higher rates of substance use at intake than mothers who moved onto ongoing service. Figures 8 and 9 indicate the primary substances used at intake, and the frequency of use of the primary substance. Although crack cocaine and alcohol were identified as primary and secondary addictions respectively by all BTC mothers, the pattern of use of crack cocaine (as reported within the past six months) differed significantly between the mothers who moved onto ongoing service and those who did not. Although crack cocaine was identified as the primary addiction by 40% of mothers overall, 65% of “intake only” mothers (as compared to 40% of mothers who moved into ongoing service) reported daily use of crack cocaine at admission to BTC. Further, only 4% of “intake only” mothers versus 25% of mothers who moved into ongoing service) reported “occasional use or periods of abstinence” from crack use. These findings lead to hypotheses regarding underlying factors explaining why some women were unable to move onto ongoing service, and may have implications for program development if confirmed. Future research is necessary to more carefully examine the impact of higher reported rates and substance use and trauma symptomatology, together with higher frequency of substance use, on engagement of women who did not move into ongoing services.

Mary – can I ask you to write up the section above based on Patty’s new analysis. I’m at a loss to understand what significantly/trend means, and therefore what we can really say here. Is the last part of the paragraph above still valid, starting with “These findings lead to hypotheses.....??

Table X. Comparison of substances used for intake and ongoing mothers

	Intake	Ongoing	Z	P
Alcohol	35/35	265/276	1.20	.23
Cannabis	33/33	250/276	1.84	.07*
Tanquilizers	8/30	90/274	-.69	.49
Heroin	11/31	74/272	.97	.33
Cocaine	18/31	175/271	-.715	.47
Crack	22/31	178/272	.615	.54
Amphetamines	2/28	67/271	-2.10	.04**
Hallucinogens	14/29	132/271	-.044	.96
Barbiturates	10/29	48/269	2.15	.03*
Inhalants	1/30	39/269	-1.70	.09**
Nicotine	33/33	232/270	2.304	.02*
OTC/Prescription Drugs	6/29	48/268	.369	.71
Antidepressants	14/32	69/270	2.18	.03*
Other drugs	5/31	40/268	.177	.86

*significantly/trend for higher proportion of intake mothers were using the substance at intake

**significantly/trend for higher proportion of ongoing mothers were using the substance at intake

Table X. Comparison of Pattern of Crack use for intake only and ongoing mothers

	Intake (N=20)	Ongoing (N=143)	z	P
Daily	7	53	-.18	.86
Less than daily	2	11	.36	.72
Weekend	2	8	.77	.44
Binges	6	20	1.83	.07
Occasional/ Abstaining	3	51	-1.84	.07

Trend for more ongoing mothers to be occasional users or abstaining from crack use compared to intake only mothers. There is also a trend for a higher proportion of intake only mothers to be binge users of crack.

Figure 8: Primary Substances Used at Intake (N=248)

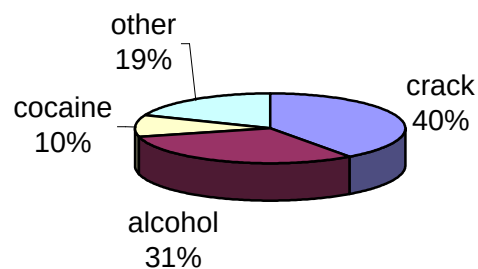
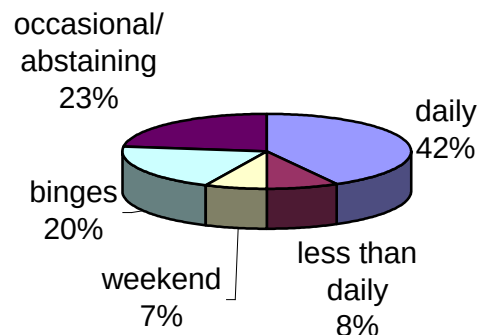


Figure 9: Frequency of Use of Primary Substance (N=223)



Ninety-two percent of mothers indicated that they experience triggering events that lead them to engage in substance use. The two most prominent triggering events that women described were experiencing discomfort/stress and experiencing unpleasant memories often related to the loss of previous children or family members.

It should be noted that over ninety-percent of BTC mothers report use of nicotine at intake. The use of nicotine does not usually draw the social and legal sanction that result from the use of illicit substances and alcohol. At intake, women often have external pressures to address their

illicit substance use and/or problematic alcohol use. Nicotine is, therefore, often not a priority substance for women to address initially as they plan to reduce or stop their substance use. Nicotine is, however, a substance that mothers choose to address later in their process of recovery. Given the medical and developmental implications of prenatal nicotine use and exposure to second hand smoke, the availability of integrated programs to address smoking reduction or cessation goals is an important item on the menu of services offered to women at BTC.

Maternal Substance Use Treatment History

Most of the BTC mothers reported that they had had previous substance use treatment experiences, as indicated in Table 23 below:

Table 23: Previous Substance Use Treatment

Type of Treatment	% of Women Who Used the Treatment	% of Women Who Found it Helpful	Median # Weeks of Abstinence Post-treatment
Residential Program	52 (N = 266)	75 (N = 124)	8 (sd = 101.7)
Self Help Program	49 (N = 263)	68 (N = 114)	12 (sd = 145.0)
Detoxification Program	43 (N = 268)	68 (N = 104)	3 (sd = 22.0)
Individual Counseling	33 (N = 264)	75 (N = 72)	3 (sd = 42.8)
Day Treatment Program	29 (N = 263)	66 (N = 65)	4 (sd = 200.8)
Hospital Program	11 (N = 264)	62 (N = 21)	3 (sd = 5.6)
Antabuse/Medication	8 (N = 263)	67 (N = 18)	1.5 (sd = 101.5)

Mary – please see the Tim’s questions (in his hard copy), and make sure that we’ve addressed them fully by changing the N’s in the table to upper case. thx

The majority of mothers (82%) who attended BTC during the study time frame had had previous involvement in substance use treatment programs in an attempt to address their addictions.

Most women had attended an average of two previous treatment programs (mean = 2; *SD* = 1.6; range 0 – 6). Although the majority of mothers indicated that previous treatment attempts had been helpful (ranging from 62% - 75%), the reported length of abstinence following treatment was brief and highly variable.

Maternal Health/Medical Status

At intake, 52% of BTC mothers reported health concerns about themselves (*N* = 201). Forty-two percent of these women were concerned about a current medical condition or infection; 14% were concerned about a present or possible diagnosis of Hepatitis C; and 10% were concerned about their pregnancy and prenatal care.

The health/medical problems reported by BTC mothers as reported at intake are summarized in Table 24 below:

Table 24: Maternal Health/Medical Problems

Medical/Health Condition	% of BTC Mothers Reporting Condition
Tremors/Shakes	26 (N = 193)
Sexually transmitted disease	19 (N = 192)
Hallucinations	17 (N = 193)
Delirium tremens	10 (N = 192)
Recent injury	8 (N = 193)
Epilepsy	7 (N = 195)
Liver damage	6 (N = 63)
Blackouts	21 (N = 61)
Ulcers/intestinal problems	19 (N = 64)
Premenstrual symptoms¹²	44 (N = 64)

Substance use and related conditions (including inadequate nutrition, unstable housing and alienation from health and medical services) have compromised the health of many BTC mothers. Despite the fact that 71% of mothers (n = 61) reported that they had had a hospitalization in the past year, 72% rated their health as excellent or very good (n = 64).

Housing Status

Tables 25 and 26 describe the type of accommodation in which BTC mothers resided. Almost one quarter (23%) reported that they had no permanent residence at intake, and were living in either shelter/hostel or other residential settings.

Table 25: Housing Status of Mothers Who Moved Onto Ongoing Service (N = 237)

Accommodation	Number of Families	Percentage
Street	3	1
Shelter/residential program	52	22
Apartment	130	55
House	52	22

Table 26: Housing Status of “Intake Only” Mothers (N = 71)

Accommodation	Number of Families	Percentage
Street	0	0
Shelter/residential program	17	24

¹² Five percent of women reporting premenstrual symptoms link their substance use to their menstrual cycle

Apartment	38	54
House	16	22

Although the types of accommodation did not differ between BTC mothers who moved onto ongoing service and “intake only” mothers, $X^2(1,3)1.02, p=.80$, there were differences between the two groups with respect to the degree of isolation they experienced in their housing situation. Just over half (55%; 128/234) of mothers who moved into ongoing service reported that they had no other adult living with them at intake; a significantly higher proportion of “intake only” mothers, (69%, 55/80) reported that they had no other adult living with them, $z=2.20, p=.03$. These data highlight the degree of isolation from personal supports for mothers in both groups, and particularly for “intake only” mothers. It also points to the possibility that having children in their care may result in increased motivation for mothers to make a greater commitment to services. These hypotheses regarding motivation require further investigation.

These data do not reflect the nature or quality of the accommodation described as “apartment” or “house”, and therefore may not reflect the transient, sub-standard or unsafe living situations in which many BTC mothers and children live. The data also do not provide information regarding the subsidized or non-subsidized nature of the accommodation, and the proportion of mothers’ income that is directed toward rent. Safe and affordable housing continue to be overriding concerns for the majority of mothers, whose income does not afford them more appropriate housing options.

Income Status

Table 27 illustrates the reported yearly income for BTC mothers and their families. Almost half (47%) of BTC mothers and their families receive less than \$10,000 per year; eighty-five (85%) of BTC mothers and their families receive less than \$15,000 per year. The low level of income shapes the programs delivered to women and children at BTC, including a strong component of support for basic needs, including food, transportation and clothing. Although they are a minority, BTC also services women from other socio-economic groups: 5% of BTC families receive more than \$30,000 per year.

Table 27: Annual Income (N = 165)

Amount	Number of Families	Percentage
Less than \$9,999	77	47
\$10,000 – 14,999	63	38
\$15,000 – 19,999	8	5
\$20,000 – 29,999	8	5
\$30,000 – 39,999	4	2
\$40,000 or more	5	3

The majority of BTC mothers (92%) were not employed (n = 306). Women who indicated employment at intake were earning their income through sex trade work or drug trafficking.

Educational Attainment

As indicated in Table 28, 25% of BTC mothers reported that they had completed less than grade 10. The average educational level was grade 10 (mean = 11, *SD* = 1.7). Twenty-two percent of mothers completed some post-secondary education.

Table 28: Highest Grade Completed (N = 309)

Grade	Number of Women	Percentage
Less than 8	9	3
8	30	10
9	3	12
10	66	21
11	59	19
12/13	109	35

Of those who responded to questions regarding problems in school (*N* = 264), 18% of mothers reported that they had had learning difficulties. Of those who reported learning difficulties, 44 mothers provided examples of the types of learning problems. They included:

- Difficulty with reading 32%
- Difficulty with math 16%
- Attention Deficit Hyperactivity Disorder 9%

Although there was no difference between level of educational attainment between mothers who moved into ongoing service and “intake only” mothers, there was a significant difference between the two groups with respect to learning problems in school, $z=3.01$, $p=.003$. “Intake only” mothers (*N* = 70) reported almost double the rates of learning problems (33% vs. 17%) than mothers who moved onto ongoing service (*N* = 264).

The high rates of reported substance use by the mothers of the BTC women, coupled with low levels of educational attainment (including problems related to learning) in this sample, suggest that BTC mothers may be at high risk for having been impacted by the prenatal alcohol and substance use of their own mothers. The possibility of higher rates of undiagnosed FASD among BTC mothers has been assumed, and adaptations to BTC addictions and parenting services for mothers with FASD have been implemented. Although a small number of BTC mothers have been diagnosed through the FASD Diagnostic Clinic at BTC, a greater capacity for assessment/diagnosis of BTC mothers is required.

These data also suggest that further attention must be given to the possibility that undiagnosed FASD may be a barrier to engagement in services. Programs serving women and children who are substance-involved need to adapt, develop and assess engagement strategies that may be more effective with women with FASD.

Legal Problems

Many BTC mothers reported a history of legal problems, including convictions on various charges including theft, assault, solicitation, possession and trafficking of illegal substances, and weapons offences. BTC mothers who responded to questions regarding legal problems ($n = 244$) indicated that they had had an average of two convictions (median = 1; $SD = 3.0$).

Almost half (40%) of BTC mothers ($n = 282$) reported that they had current legal problems at intake. Almost one-third (31%) indicated that they were on probation/parole orders, and 28% were awaiting either a trial or a sentencing hearing.

Mothers' Pregnancy History

As indicated in Table 29, BTC mothers have had an average of 5 pregnancies each (mean = 4; $SD = 9.8$). They have had an average of 2 live births (mean = 2; $SD = 1.4$), 2 terminations (mean = 1; $SD = 8.3$) and 1 miscarriage (mean = 0; $SD = 1.1$).

Table 29: Number of Pregnancies ($N = 231$)

# Pregnancies	Percent
1	13
2	15
3	21
4	17
5	10
6	10
7	6
8	4
9	1
10	1
11+	3

A history of induced terminations has been associated with enhanced risk for substance use after the procedure. Among women who report negative psychological complications stemming from pregnancy terminations, symptoms reported included depression, anxiety, depression, grief and substance use (Reardon et al., 2002; Coleman et al., 2002). The high rates of obstetrical losses among mothers at BTC may contribute to their experiences of loss and trauma, which may lead to increased substance use in an effort to self-medicate.

Total Number of Children of BTC Mothers

Ninety-six percent of mothers had children at admission to BTC¹³. There was an average of 2 children in each BTC family (mean = 2 children; $SD = 1.3$; range 0-12 children). There were a total of 718 children in 330 families.

Custody Status of Children¹⁴

¹³ Four percent were pregnant with their first child

Of 718 children born to 313 BTC mothers, information on the custody status of 687 children was available at intake:

- 32% of all children were in the custody of their mother
- 31% of all children were in the care of another family member
- 37% of all children were in non-relative care (ie foster care)

This is consistent with other research on custody status of children of substance-involved mothers (Famularo et al 1992; Chaffin et al., 1996; Ammerman et al., 1999; Reid et al., 1999; Motz 2003; Lester et al., 2004). The high rates of out of home placement of children with substance-involved mothers reflect the impact of substance use on parenting capacity, the impact on child safety, development and well-being, and the paucity of available programs and services that could provide treatment and support.

BTC Children

Demographic data were available on 253 children under six years of age who attended BTC between May 1995 and May 2005 inclusive. This number is lower than the number of children born to BTC mothers as information was only collected for children who were eligible to access service at BTC (e.g., those who were under the age of six years and who were able to attend programs with their mothers). The distribution of children's ages is provided in Table 30. The mean age of the children seen at BTC during the study time frame was 1.5 years ($SD = 1.6$ years). Forty-eight percent of BTC children were male; 52% were female. **Mary – please see Tim's comments on page 79 of his hard copy, and make sure that we have addressed his questions and comments fully. Thx.**

Table 30: Distribution of Children's Ages ($N = 263$)

Age	Percent of BTC Children
0-5 months	36
6-11 months	15
12-17 months	8
18-23 months	7
2 nd year	13
3 rd year	10
4 th year	5
5 th year	3
6 th year	3

Custody Status of BTC Children

Table 31 indicates that 53% of BTC children for whom data were available were in the care of their mothers or maternal family members at intake. Ninety-five percent of BTC children for

¹⁴ These data represent custody information for all of the children born to mothers at BTC.

whom intake data were available had contact with their mother, even when they were not in her custody. Mothers reported that 65% of BTC children had contact with their biological father.

Table 31: Custody of Children (N = 242)

Custody	Percent
Mother/Maternal Family Member	53
Father/Paternal Family Member	5
Mother and Father	15
Child Welfare Agency	27

Maternal Health Status and Prenatal Risk Factors

The vulnerable medical/psychosocial/economic situations of BTC mothers resulted in the presence of risk factors not only to mother's health in pregnancy, but also to the growth and development of the fetus. Numerous risk factors were identified by the mothers, including exposure to alcohol and other substances. Almost three-quarters (72%) of BTC mothers reported using alcohol and/or other substances during their pregnancy.

Factors related to maternal health in pregnancy were examined including access to health and prenatal care, and pre-existing or gestational conditions such as low weight gain, anemia, diabetes, high blood pressure, obesity, infections, and placental problems.

Sociodemographic characteristics about the mother were also examined, including maternal age, housing security, exposure to violence (community or domestic), maternal stress, access to social support (personal or professional), mental health status.

As indicated in Table 32, mothers and their fetuses were exposed to multiple risk factors during pregnancy, with an average of 2 of the above noted risk factors (mean = 2; *SD* = 1.5).

Table 32: Number of Prenatal Risk Factors (N = 240)

# Prenatal Risk Factors	Percent
0	6
1	33
2	27
3	14
4	11
5	7
6	1
7	<1
11	<1

Birth History and Perinatal Health Status

Eighty-two percent (82%) of BTC children were born at full term, weighing an average of 6 lbs, 14 oz ($SD = 1.4$; range 2lbs, 0oz – 11lbs, 13oz; $n = 200$). Birth complications were reported in 82 cases (34%, $n = 241$), and these included:

- Unplanned Caesarian delivery
- Placenta previa
- Induction
- Infection or risk of infection
- Meconium stain
- Low fetal heart rate or difficulty breathing

As indicated in Table 33, 25% of children were reported to have been diagnosed with postnatal health conditions including:

- Drug withdrawal
- Fetal Alcohol Effects
- Low birth weight
- Genetic disorder
- Respiratory difficulties
- Cardiac complications
- Birth injuries
- Birth defects
- Seizures or tremors
- Other diagnoses

Table 33: Postnatal Diagnoses ($N = 233$)

# Postnatal Diagnoses	Percent
0	75
1	18
2	5
3	2
4	<1

The average length of hospital stay was 5.6 days ($SD = 8.3$; median= 3 days; $n = 196$). Thirty one percent of the premature infants required interventions including medication, respirator, feeding tube, incubator, apnea monitor, or other.

Table 34: Length of Hospital Stay ($N = 196$)

Duration of Stay (Days)	Percent

0	4
1	16
2	22
3	17
4	8
5	9
6	3
7	7
8+	14

Table 35: Number of Interventions Required for Premature Children (N = 123)

Number of Interventions	Percent
0	69
1	18
2	6
3	6
4	1

Child Welfare Involvement

Despite the high-risk conditions in which mothers and infants live, child welfare agencies are not involved in 40% of cases when families first arrive at BTC.

One of the goals of the BTC program is to identify infants and mothers at-risk as early as possible so that intervention can be expedient and timely, when appropriate. Data on the timing of child welfare involvement indicate that families attending BTC were receiving support before the infant was 6 months old when support was deemed necessary. **[Mary – the sentence and the chart are not consistent; Deb – “this isn’t clear, does this mean that BTC was responsible for the intervention? And are these data just for the babies born at BTC?;) Mary – Everyone has had trouble with this sentence, and I guess I’m not reading the data accurately. I’ve provided all the comments, including yours. Could you write a sentence or two indicating that’s consistent with the data? Many thanks!**

Table 36: Child Welfare Intervention (N= 120)

Time of Intervention	Percent
Hospital Visit	56
Within 6 months	20
6-12 months	5
After 12 months	13

Other	6
-------	---

Children's Separations from their Mother

- Sixty two percent (62%) of mothers reported one or more separations from their children.
- Average age of child at first separation was 1.3 years ($SD = 1.7$ years; median = .6 years; $n = 125$).
- Average number of days of first separation was 84.0 ($SD = 85.7$ days; median = 90 days; $n = 134$).
- 58% of mothers reported ongoing separations from their children (i.e. their children were not in their care at the time of intake).

Table 37: Number of Child Separations from Mother ($N = 137$)

# Child Separations	Percent
1	83
2	11
3	4
4	<1
6	<1
Numerous	<1

Mothers' Concerns Regarding their Child/ren's Health

86% of BTC mothers perceived their child/ren's health to be Excellent or Very Good. **29%** of mothers reported concerns regarding their child/ren's health. Types of concerns included:

- Infection or disorder – e.g., asthma, Cerebral Palsy, allergies (28.9%)
- Other health concerns – e.g., cold, difficulty breathing, eating problems (20.0%)
- Effect of maternal substance use (15.6%)
- Physical development of child (13.3%)
- Effect of maternal STD (8.9%)
- Breastfeeding concerns (4.4%)
- Other developmental concerns - e.g., language delay (4.4%)
- Transient living environment (2.2%).

At intake, BTC mothers provided information regarding injuries sustained by their children including:

- 42.5% of mothers ($n = 196$) reported that their child had been injured.
- 88.9% of mothers who reported injuries, indicated that they occurred at one time only; the other 11.1% reported two injuries.
- Injuries consisted of cuts/scrapes/bruises/bumps (96.4%), broken/fractured bones (1.8%), and dental injury (1.8%).
- a child welfare agency was notified in 5.5% of these cases.

Mothers' Concerns Regarding their Child/ren's Development

Thirty-one percent of BTC mothers reported developmental concerns about their children. Their concerns clustered within the following three categories:

- Developmental progress (incl. language, motor and cognitive development, and behaviour) 62%
- Effect of prenatal substance exposure on health and development 21%
- Parent-child relationship/attachment 11%

When asked about their goals for their children, the three most frequent responses were:

- For their child to interact better with peers (28%)
- To have fun and good playtime (14%)
- To improve the mother-child relationship (12%)

Mothers' Perceptions of Parenting

At intake, over half of the BTC mothers (51%) reported that it was difficult for them to determine, on their own, whether they were parenting well.

- 81% of mothers reported that there are particular times of the day that are more difficult in managing their child or children.
 - 42% indicated that “before naptime or bedtime” is the most difficult time.
 - Other times that were deemed difficult by mothers included:
 - early in the morning (18%)
 - afternoon (11%)
 - late afternoon (9%)
 - mealtimes (7%)
 - getting ready to go out (3%)
- 10% stated that there were numerous times of day that were difficult.

Parenting Stress

On the Parental Stress Index, the average percentile score on the Parental Distress scale for BTC mothers was 63.2, with a median of 70. This indicated that BTC mothers experienced significantly more maternal distress, on average, than mothers on whom the scale was normed. The standard deviation for the BTC sample on this scale was 27.6, indicating much variability within the sample. **Mary – could you check this, and make the appropriate changes in the text if required? thx**

Children and Discipline

On the Difficult Child scale of the Parental Stress Index, the average percentile score for BTC mothers was 50.3, with a median of 55. Although this mean score is in the normal range, it is important to note that the standard deviation was 30.9 indicating great variability among the scores of the BTC mothers. At intake, mothers reported a high frequency of times that they needed to discipline their children.

Frequency of Need to Discipline Their Children (N=108)

- More than 5 times per day 15%

- 3-5 times per day 25%
- 1-2 times per day 25%
- Less than daily 14%
- Less than weekly 1%
- Never 20%

Methods of Discipline Used

At intake, BTC mothers reported the use of both adaptive and maladaptive discipline methods. As shown in Table 38 (n = 105 to 115), 46% reported that they “Never” use the recommended non-hostile strategy of Time Out, whereas almost one-third (30%) reported that they Slap/Hit their very young children on a “Less than weekly” basis or more frequently. Almost two-thirds (59%) reported they shout at their children at least daily or weekly; 55% of mothers reported getting angry at least daily or weekly. Taken together, this parenting profile suggests that mothers need considerable support in developing positive attachment relationships with their children, and in developing non-hostile methods of discipline. These data indicate that these stressed mothers are in need of supportive parenting programs.

Table 38: Maternal Methods of Discipline

Discipline Styles/Issues	>5 times/day	3-5 times/day	1-2 times/day	Less than daily	Less than weekly	Never
Time out	5%	10%	18%	12%	9%	46%
Shout	8%	18%	17%	16%	10%	31%
Get angry	5%	10%	20%	20%	12%	33%
Slap/hit	1%	3%	2%	11%	13%	70%
Difficulty Managing	4%	13%	15%	17%	23%	28%
Punishment depends on mood	4%	8%	9%	9%	15%	55%
Child ignores discipline	21%	20%	21%	11%	3%	24%
Need to discipline repeatedly	17%	17%	20%	14%	6%	26%

Mother-Child Interaction

The Mother-Child Interaction profile is based on mothers’ responses on the Parental Stress Index. The PSI contains a defensive responding subscale that examines the extent to which mothers

over- or under-represent the stress they experience in interactions with their children. The mothers who completed this measure had a mean percentile of 75.6 ($SD = 28.8$; median = 87.5) on the defensive responding subscale. BTC mothers tended to respond significantly more defensively than parents on whom the test was normed. The standard deviation of 28.8 indicated that there was much variation within this sample. This result is not unexpected given that these mothers are particularly sensitive to having their mothering judged and are often fearful of the consequences of being labelled “bad mothers”.

The average percentile score on the Parent-Child Dysfunctional Interaction scale of the PSI suggested that BTC mothers’ responses were in the normal range (mean = 49.8; $SD = 27.0$) with a median score of 47.5. BTC mothers reported experiencing an average amount of parent-child dysfunctional interaction. However, there was marked variability with a standard deviation of 27.0. When asked about the frequency of various parenting behaviours there was also much variability in the answers of BTC mothers.

Table 39 presents the types of interaction in which these high-risk mothers engaged with their children ($n = 138$ to 143). For example, 18% reported that they talk to their children fewer than 5 times per day. In addition, over one-third (38%) reported that they tell stories or read to their children either less than daily, less than weekly, or never.

Table 39: Mother-Child Interaction

Interaction	>5 times/day	3-5 times/day	1-2 times/day	Less than daily	Less than weekly	Never
Hold/Kiss/Cuddle	71%	21%	8%	0	0	0
Praise	60%	30%	9%	1%	0	0
Talk	82%	15%	3%	0	0	0
Play	48%	29%	17%	2%	1%	3%
Laugh	63%	26%	8%	0	0	3%
Tell stories/read	5%	15%	42%	28%	5%	5%
Go on outings	9%	22%	56%	10%	3%	0
Play games/sports	10%	32%	31%	13%	2%	12%

Overall 96% of BTC mothers ($n = 140$) reported that parenting was a positive experience for them, 4% noted the experience to be positive and negative, and less than 1% said that parenting was a negative experience.

3.2.4. Clinical Outcomes Data

1. Substance use outcomes

An analysis of repeated ratings on the Addiction Dependence Scale (ADS) at Time 1 and Time 2 yielded significant correlations with sociodemographic information reported at intake.

First, there was a significant relationship between higher rates of improvement between T1 and T2 on the ADS and more severe trauma histories reported at intake ($r = .49, p = .02$). Severity of trauma history was operationalized using the “cumulative abuse scale”¹⁵, which was based on responses to intake questions related to sexual, physical and emotional abuse, and to the age at which the abuse occurred. Second, higher rates of improvement between T1 and T2 on the ADS were significantly related to less negative parenting practices reported at intake ($r = .70, p = .02$). Third, there was a trend for women who reported greater improvement between T1 and T2 to have reported better support from family members at intake. Finally, there was a trend for higher rates of improvement between T1 and T2 on the ADS to be related to reported rates of substance use at intake to BTC.

The relationship between trauma and women’s substance use has been described extensively (Brady et al., 2005). It might be hypothesized that less severe trauma histories may result in enhanced maternal psychological functioning, which facilitates positive changes in alcohol use over time. Less severe trauma histories may also be related to fewer negative parenting practices and more positive family history at intake, reflecting stability of not only internal but also external resources upon which to achieve positive change over time in substance use behaviours.

The correlation between rates of improvement on the ADS and higher reported rates of substance use at intake is less straightforward. It may be explained by the fact that the T1 ratings were high to start; hence there is potential for a steep slope of change representing the reduction of alcohol use between T1 and T2 because the T1 ratings were higher to start. This may also be an artifact of regression to the mean, when the highest scores tend to be less high at a subsequent measurement time. [Tim – ceiling effect?] Mary – See Tim’s comments on page 88 of his report. Could you write a sentence here that uses Tim’s suggestion of a ceiling effect to explain the findings (I just don’t have the words to explain what a ceiling effect is

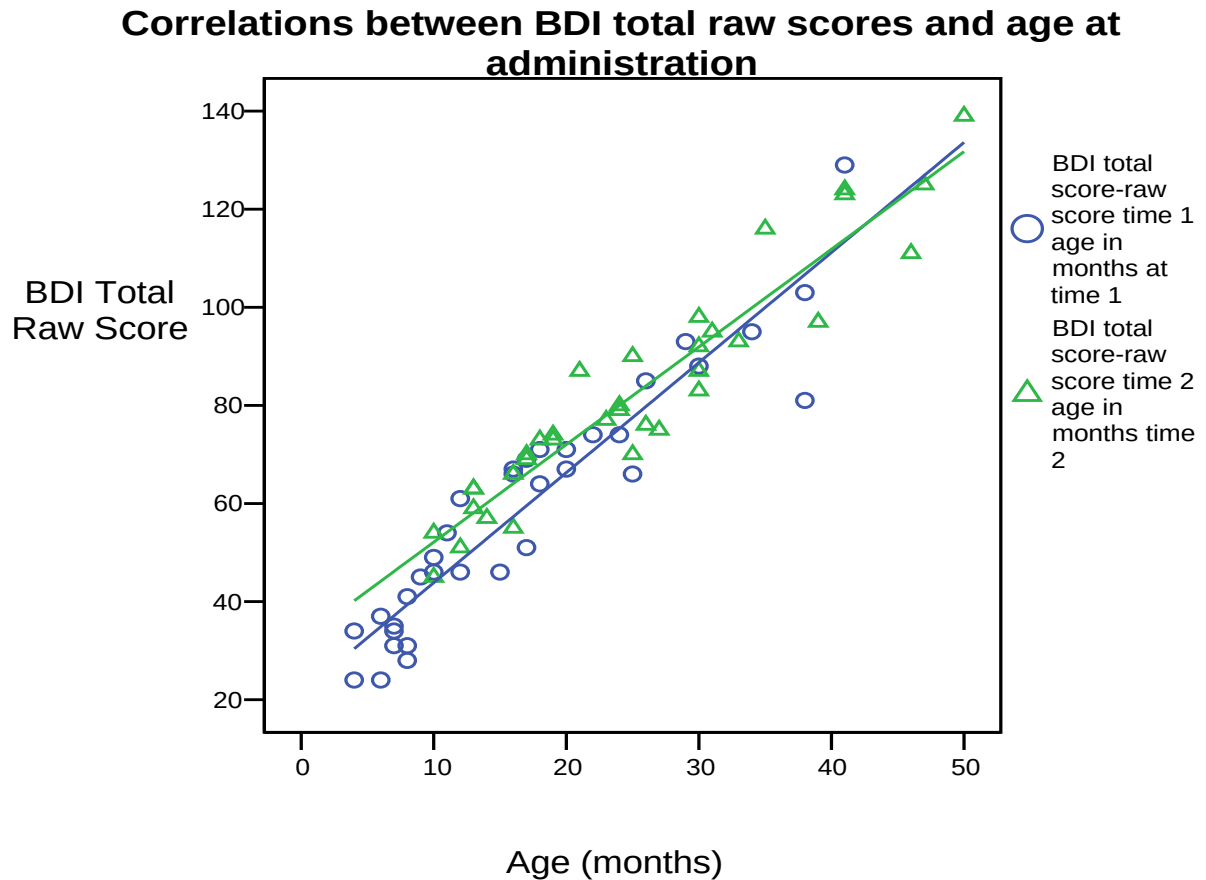
Results of the Drug Abuse Screening Test (DAST) scores at T1 and T2 were equivocal, and were not correlated with other outcome measures or sociodemographic information. Some mothers improved, some stayed the same, and some relapsed or got worse within a 6-12 month period of time. These results may be related to maternal stage of change, and readiness or motivation to change. Underlying factors related to maternal motivation to change substance use behaviours have been largely unexplored, and warrant further investigation.

2. Child development outcomes

An analysis of repeated measures of the BDI indicate that, when controlling for age (or maturity), there is no change in BDI scores from Time 1 to Time 2. BDI scores in this sample are strongly correlated with age (.98), which indicates that children are developing along a trajectory that is consistent with their age over time. When compared with age-equivalent scores on the BDI (total score), BTC children function within the normal range of development. This indicates better

¹⁵ A section of the BTC intake form asks clients to indicate whether they have a history of sexual, physical or emotional abuse and if so, to identify the age at which the abuse occurred. The cumulative abuse scale was created by summing responses to these items. Sexual, physical, and emotional abuse items were each coded dichotomously (0 indicating the absence of the specific type of abuse and 1 indicating the presence of abuse). The three abuse items were weighted based on the age at which the abuse occurred/began. A weighting factor of 1 was assigned if the abuse occurred when the client was older than 16 years of age and a weighting factor of 2 was assigned if the abuse occurred when the client was 16 years old or younger. These weighting factors were used because attachment theory predicts that the experience of abuse during childhood would have a more negative impact on the development of working models of relationships and social competence, which in turn influence a mother’s parenting abilities

developmental progress than would be expected given the literature on substance-exposed children.



Further, there is a significantly smaller number of children scoring below the minus 1.5 standard deviation cut-off at Time 2 compared to Time 1 for the cognitive domain. Finally, there is a trend for fewer children to score below the minus 1.5 standard deviation cut-off on the receptive language domain at Time 2 compared to Time 1.

Table X. Proportion of children scoring below the minus 1.5 SD cutoff on the BDI at time 1 and time 2

BDI Domain	Time 1	Time 2	z-value	p-value
Personal/Social	22/95	7/34	.31	.76
Adaptive	9/97	1/34	1.20	.23
Gross Motor	3/95	1/34	.06	.95
Fine Motor	4/95	1/35	.36	.72

Motor Total	7/95	4/34	-.79	.43
Receptive	9/96	0/33	1.82	.07*
Expressive	15/97	5/34	.11	.91
Communication Total	13/95	4/34	.28	.78
Cognitive	31/93	2/33	3.06	.002**
Total Score	25/96	7/33	.55	.58

*trend

**statistically significant

Although the factors contributing to these optimistic developmental findings among this sample cannot be fully explored given the limitations of this evaluation design, it can be hypothesized that one or more of the following factors have contributed to the outcomes:

- Access to intensive and individualized early intervention programming based on developmental screening and assessment results
- Improvements in maternal functioning (e.g., decreased substance use, improved health and mental health status, and improved parenting)
- Improvements in levels of social support and access to services.

Child developmental outcomes were significantly related to maternal reports of parenting practices at intake. The children of mothers who reported more negative parenting practices were more likely to have lower developmental scores in all domains at Time 1. The children of mothers who reported more negative parenting practices were more likely to have lower developmental scores in all domains at Time 1.

Table X. Correlations between BDI domains and negative parenting practices* at time 1 (N=68)

* higher scores reflect more negative parenting

BDI Domain	Pearson correlation coefficient	p-value
Personal/Social	.41	<.0001*
Adaptive	.49	<.0001*
Gross Motor	.08	.54
Fine Motor	.49	<.0001*
Motor Total	.25	.04*
Receptive	.12	.35
Expressive	.08	.53
Communication Total	.20	.10
Cognitive	.21	.09
Total Score	.46	<.0001*

*statistically significant

Further, maternal reporting of good child health at intake was also significantly related to significantly higher developmental scores in all domains at Time 2.

Table X. Correlations between BDI domains and mothers' child health concerns* at time 1 (N=68)

* higher scores reflect more child health concerns (N=102)

BDI Domain	Pearson correlation coefficient	p-value
Personal/Social	.24	.02*
Adaptive	.27	.006*
Gross Motor	.14	.18
Fine Motor	.22	.03*
Motor Total	.20	.04*
Receptive	.19	.05
Expressive	.15	.13
Communication Total	.22	.03*
Cognitive	.21	.03*
Total Score	.26	.009*

*statistically significant

3. Parenting outcomes

Significant associations were found between parenting stress and history of trauma. Parenting stress as measured on the PSI total scale and on all subscales (except Difficult Child), was positively related to mothers' own history of trauma. Mothers who experienced higher levels of parenting stress as measured on the PSI also reported more mental health problems (suicide attempts, self-harm behaviours, and eating disorders).

Table 40 indicates that, although there was a decrease in all subscales of the PSI (except Difficult Child) and the total scale, the PSI between T1 and T2, there was a significant decrease on two of the subscales: Defensive Responding and Parent Distress.

Table 40: Results of ANOVA with Repeated Measures for PSI – Subscales (N = 48)

Measures	Mean 1 (SD)	Mean 2 (SD)	F	P
Defensive Responding	18.50 (5.25)	17.21 (4.81)	4.06	.05
Parent Distress	30.71 (8.09)	24.48 (7.19)	5.45	.024
Parent-Child Dysfunction	19.46 (6.80)	18.27 (5.87)	2.56	NS
Difficult Child	27.15 (8.67)	27.85 (9.03)	0.24	NS
Total Scale	76.62 (18.03)	75.33 (17.70)	0.37	NS

The impact of change on the Defensive Responding and Parent Distress Scales is significantly more profound for those mothers who were engaged during pregnancy and whose children were born into the BTC program. While the slope of change indicates a decrease on all subscales (except Difficult Child) for all mothers, the slope of change between T1 and T2 is steeper for mothers of children whose mothers were engaged during pregnancy (see Figures 13 – 17) and mothers in this group became less defensive, ($p = .03$) and distressed ($p = .05$) over the periods of administration.

Figure 13: Marginal Means of Defensive Responding

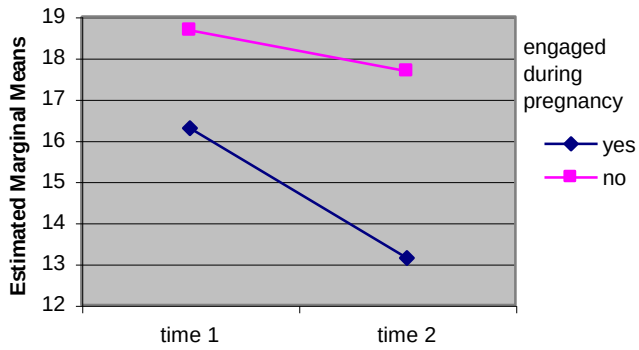
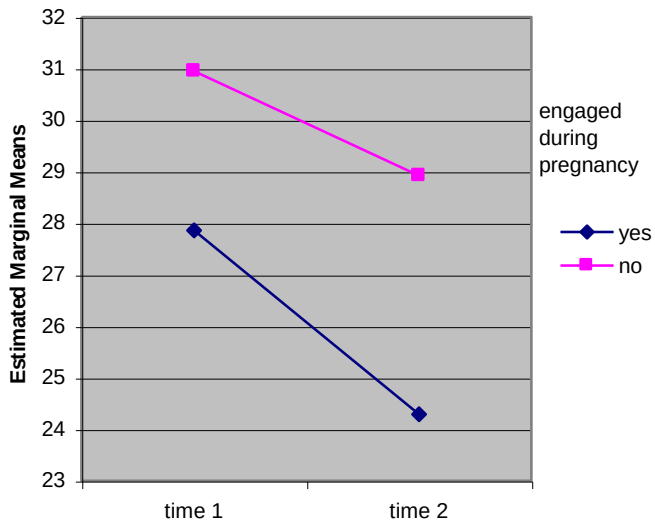
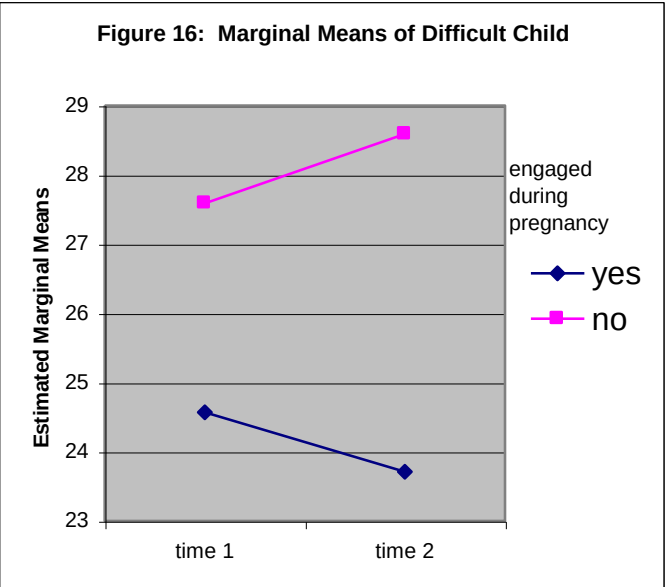
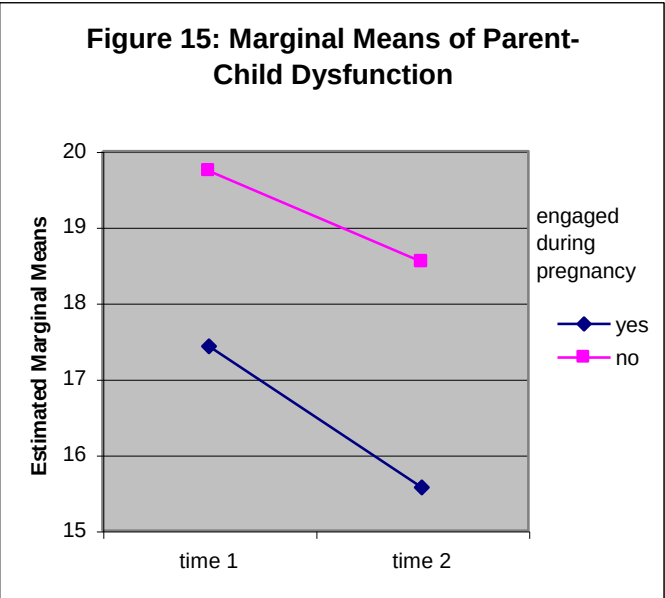


Figure 14: Marginal Means of Parent Distress





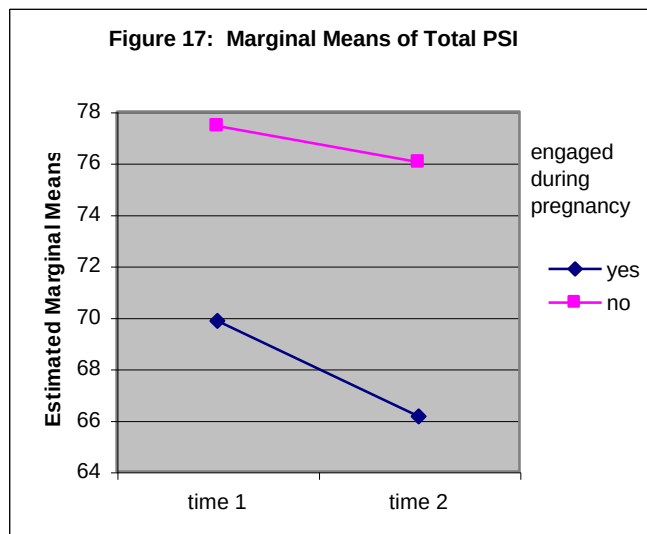


Table 41 below indicates that the decrease on the Defensive Responding subscale and the Parent Distress subscale remained significant at Time 3 ($p = .02$ and $p = .005$ respectively). Decreased defensiveness responding scores may be related increasing levels of trust in the program over time, as well as to greater confidence in their mothering role, both contributing to increased honesty in reporting. **[Patty - Add post hoc tests for defensive responding and parenting distress]** Mary – this is Patty’s suggestion. Can you follow up and make the required edits in the text?

The Difficult Child subscale continued to increase at Time 3, and the Dysfunctional Interaction subscale increase between T2 and T3. **[but these are non-significant differences, ergo no change – TM]** Mary, is Tim correct here? If so, should we revise/delete this sentence and the paragraphs below? See Patty’s comments in Tim’s report, where she suggests that it would be clearer to discuss these increases in terms of trends. I leave it to you to make the decision, and edit the text as required.

Increased scores on the Difficult Child subscale could be related to constitutional factors in the child related to prenatal substance exposure. This sub-scale focuses on behavioural characteristics of children that may cause parents to perceive them as difficult to manage. The literature has described temperamental, regulatory, sensory and behavioural difficulties associated with prenatal substance exposure.

The Parent-Child Dysfunctional Interaction subscale assesses the parent's perception of her interactions with her child, as well as satisfaction with these interactions. High scores indicate parental dissatisfaction in interactions with the child. Increased scores between T2 and T3 on this subscale may be explained by maternal response to expected development tasks of toddlerhood, including the development of autonomy, separation/individuation, and the expression of negative emotion. These expected toddler developments may present special challenges to mothers whose relational experiences may not have included positive models for the management and positive resolution of separation and other transitions in relationships. The expected increase in the expression of negative emotion by toddlers may also represent particular threats to maternal self-esteem and self-confidence among this population of mothers.

Table 41: ANOVAS with repeated measures for PSI Subscales ($N = 20$)

Measures	Mean 1 (SD)	Mean 2 (SD)	Mean 3 (SD)	F	P
Defensive Responding	20.85 (5.46)	19.50 (4.98)	17.40 (3.86)	4.74	.015
Parent Distress	34.70 (7.88)	32.20 (6.35)	28.95 (6.77)	6.04	.005
Parent-Child Dysfunction	21.30 (8.89)	19.50 (6.53)	19.85 (6.26)	1.61	NS
Difficult Child	28.60 (9.70)	30.35 (9.03)	31.75 (6.55)	1.44	NS
Total PSI	82.05 (19.57)	81.65 (18.42)	81.25 (14.54)	0.03	NS

Parenting Sense of Competence

For the sub-sample examined for the CAPC Regional Evaluation, paired t-tests were used to analyse the responses on the Parenting Sense of Competence Scale at entry and at exit on the sample of 12 mothers. Table 41 illustrates the findings that confirmed a significant improvement on both subscales and on the total parenting competence score from T1 to T2.

Table 42: Parenting Sense of Competence (N = 12)

Subscale	t	Significance (2-tailed)
Parenting Efficacy	-4.719	.001
Parenting Satisfaction	-7.386	.001
Total Parenting Competence	-8.000	.001

Mary – see Tim’s comments on page 94 of his report, where he recommends showing means at T1 and T2. Patty could not find means in her output files, and she doesn’t have this data on her copy of the data base. Could you follow up and make the required edits in the text? Tx.

Maternal Postnatal Attachment

For the sub-sample examined for the CAPC Regional Evaluation, paired t-tests were used to analyse the changes between T1 and T2. Table 43 indicates that the sum of maternal postnatal attachment increased significantly between T1 and T2, ($t = 4.7, p = .002$), and significant increases were reported on the quality of attachment and absence of hostility subscales. There was no change on the pleasure in interaction subscale between T1 and T2, but it should be noted that the means were high at entry (22/25) on this subscale. [Patty - Already reached ceiling at intake? Counter-intuitive ...regression to mean] Mary – can you follow up with some these

questions/hypothesis from Patty, and make the required additions/revisions to this paragraph as required?

Table 43: Maternal-Infant Attachment (N = 9)

Subscale	t	Significance (2-tailed)
Quality of attachment	-9.4	.001
Absence of hostility	-4.7	.002
Pleasure in interaction	-0.18	.862
Sum of maternal postnatal attachment	-4.702	.002

[Patty: May be useful to report mean scores here] Mary – Tim makes the same recommendation that Patty does (on his copy, pg. 95) Can you follow up and make the required edits in the text?

4. Discharge outcomes

Clinician ratings on program discharge forms were examined for relationships with other outcomes and sociodemographic factors.

Improved situation at discharge (on clinician rating) was positively related to severity of addiction as reported at intake, ($p = .04$). Higher reported rates of substance use at intake were correlated with improved situation at discharge. Lower reported rates of mental health symptoms were related to improved situations at discharge, ($p = .02$).

Attainment of intervention or treatment goals at discharge was related to:

- Higher reported rates of substance use at intake ($p = .07$)
- Lower rates of maternal mental health symptomatology at intake ($p = .008$)
- Fewer reported prenatal risk factors ($p = .04$).

Further, higher rates of reported negative parenting practices at intake were related to “poorer” maternal situations at discharge.

Both regular attendance and a higher number of different BTC services used were positively correlated with more severe trauma history reported at intake ($p = .007$ and $.04$, respectively).

To examine the impact of length of service on client outcome at discharge, clients were divided into two groups based on length of time in service at BTC: those who had accessed services for less than 12 months and those who remained in service for longer than 12 months. These groupings were based on statistical means and clinical decisions. The findings confirm the benefits of longer-term retention in service. Women who remained in the program for longer than one year were:

- More likely to have IFSP goals completed at discharge ($p \leq .001$)
- More likely to have had regular program attendance ($p \leq .001$)
- More likely to utilize a wider breadth of services ($p \leq .001$)

Mary – is there a better way to show the p value as “less than or equal to” .001? The way I’ve done it doesn’t look right. Please make the appropriate revision in the text.

Program Attendance and Service Usage

For the sub-sample of families examined for the CAPC Regional Evaluation, information was collected regarding program attendance and use of other CAPC programs. Table 44 indicates rates of monthly attendance. Forty-one percent (41%) of this sub-sample of BTC mothers attended BTC 5 or more times per month, with over a third (35%) reporting that they attended 3 or 4 times per month, or approximately once weekly.

Table 44: Monthly Attendance ($N = 17$)

Number of times family visited BTC per month	Percent
1 or 2 times	24
3 or 4 times	35
5 or more times	41

Table 45 provides information about program attendance in total. Over half of this sub-sample of mothers reported that they attended the program more than 20 times in total. This is consistent with the finding in the overall BTC evaluation that for mothers whose files have been closed once and for whom we have data, the average number of months in the program was 12 months ($SD = 9.1$ months) with a median of 9 months. Of the women whose files have been closed on two occasions and for whom we have data, their total average length of time in the program was 19 months.

Table 45: Total Program Attendance ($N = 17$)

Number of visits to BTC during the evaluated time period	Percent
6 to 10 times	5
11 to 15 times	24
16 to 20 times	18
More than 20 times	53

None of the mothers in this sub-sample attended any other CAPC or parent/child/prenatal programs while participating at BTC. This is not unusual given the complex and high-risk nature of the problems experienced BTC mothers, and the specialized, intensive and comprehensive range of services of addressing maternal substance use, parenting, and child developmental issues in the maternal-child model at BTC.

All of the respondents (100%) indicated that they were attending a parent-child program at BTC and 100% were also receiving home visitation services to enhance maternal-child interactions and promote child development. Although the Social Support Behaviours Scale does not ask about

substance use counselling programs, all women in this sample also attended an addiction support group and individual addiction counselling sessions. Further, all BTC children also received individualized early intervention services based on their assessed developmental strengths and vulnerability. BTC offers a “Cooking Healthy Together” nutrition program, but none of the women in this small sub-sample were attending that group. BTC does not offer a community development program or drop-in programs.

Level of Social Support

For the sub-sample examined for the CAPC Regional Evaluation, paired t-tests **Mary – please see Tim’s comment on page 97 re MANOVA and make the appropriate revisions in the text as required.** were used to analyse the responses on the Social Support Behaviours Scale at entry and at exit. Table 46 illustrates that there was a significant increase in reported social support from family and friends on all pre and post measures on this scale.

Table 46: Level of Social Support (N = 17)

Subscale	t	Significance (2-tailed)
Family Emotional Support	-3.789	.002
Family Social Support	-3.389	.004
Family Practical Assistance	-4.115	.001
Family Financial Assistance	-4.870	.001
Family Advice/Guidance	-4.020	.001
Total Family Support	-4.082	.001
Friend Emotional Support	-5.921	.001
Friend Social Contact	-5.100	.001
Friend Practical Assistance	-5.922	.001
Friend Financial Support	-7.195	.001
Friend Advice Guidance	-5.900	.001
Total Friend Support	-6.282	.001

Knowledge of Services

For the sub-sample of mothers (n = 17) examined for the CAPC Evaluation Report, BTC mothers consistently reported increased knowledge and confidence regarding services in the community at exit:

- **100% strongly agreed or agreed** (59% and 41% respectively) that they were more informed about programs in the community
- **100% strongly agreed or agreed** (77% and 23% respectively) that they were better able to access help from other organizations and agencies.
- **94% strongly agreed or agreed** (41% and 53% respectively) that they were better able to deal with practical problems.

- **100% strongly agreed or agreed** (47% and 53% respectively) that they were better able to meet basic needs such as food and housing.
- **100% strongly agreed or agreed** (59% and 41% respectively) that they felt more connected with other mothers.
- **100% strongly agreed or agreed** (65% and 35% respectively) that they felt more connected with programs they could use.
- **94% strongly agreed or agreed** (41% and 53% respectively) that they felt more a part of the community where they lived.

3.2.5. Focus Group Data

Focus group respondents identified strengths of the BTC program, including the types of supports and services they have found the most helpful:

1. Comprehensive, integrated, single-access approach

Respondents spoke of the importance of being fully known as a whole person, and not just “an addict”, and of receiving services addressing and supporting their various roles, including that of mother or mother-to-be. The maternal-child focus was also identified as important.

But they had everything here. Like all the different aspects of the .. not just trying to help me the addict, but me the brand new parent-to-be, and the public health nurse. Like I had no idea, I'd never been around babies or small children in my life, so I didn't have a clue about what's going to happen.

I find that the focus isn't entirely on your addiction, it's you and your child...I mean the addiction is part of it as well, but it's mostly about you and your child. And, you know, how you go through with it at the same time. You're going through...the aftermath of your addiction...which is a hard enough thing to do, without a child...but then you have a child, and you have to cope with both at the same time. So they focus on both. You have to be there for your child, and what to do when there's stress, so you don't return back to addiction.

Respondents remarked on the benefits of a range of services available at a single point of access, but also appreciated the flexibility of approaches including home visitation.

The whole package though. Like (the Parent-Infant Therapist) still comes to our home on a bi-weekly basis, we have (the paediatrician/toxicologist) for any medical problems, we have (the public health nurse) for any questions on how to breastfeed ... You don't have to go to different locations all over the place, it's all under one roof, so a lot of the information you can access here. And knowing that (the child development counsellors) are always there, if you had to go to court one day ... you could just call and say, could you please watch Jenna for me for three hours while I go do something. Because you don't have anyone else. Really, I didn't have my family or anybody to keep an eye.

2. Accepting, non-judgemental approach

Well they were here to help me when I was in pretty rough shape. Like I was down to the ground, I had nothing, I had no one, and I came and asked for help, and now today I can say I'm very grateful. Without them I wouldn't be here, and I wouldn't have my job back. I've got the opportunity to keep my daughter because of here. There were some things I had to do, but ... So yeah I changed from being here, through therapy, the groups, just the support that comes out of here. They don't judge you.

You can't do any wrong, you know what I mean? So you feel comfortable. They all know we have problems, and the fact that we're making an effort they think is a very positive thing. A lot of it is encouragement.

For me, I had no self-esteem, no self-worth, I felt like the worst person on the face of the earth, because how could you get much lower than what I was? I don't know, they kind of nursed me back to health again, with words of encouragement, and not just the words but the actions to follow through with the words like "Yeah, we will be here for you, no matter what. And you don't have to be afraid of saying I use, or I had a relapse.." and I don't know, they never kick you out, they never say, you know, you can't come here anymore because you've used too many times or you've quit too many times, there's no really right or wrong way to do it, it's just like "Okay keep coming, just keep coming, and we'll do what we can to try to make it work, if one way's not working we'll try another way"

3. Mutual and reciprocal relationships

They didn't force anything upon you like "Okay you have to go to twelve step meetings, or you have to go to (detox), or you have to look at it this way". They give you, here's your five options, check every one out if you want, or you can choose which one, which path you want to go, but everyone's an individual and everyone's difference, and one way may work for me that doesn't work for (another client). Or you know, everybody's an individual, it's not like "Here's how you've got to do it, and everyone's got to do it this way, and if you don't do it this way you're going to fail, or ..." or they didn't ever put it that way. It was always, "here's your options, and try which ways you would like to do it in", not someone telling you "You have to do this", you know?

And they were just so gentle, even though you know I was just so scared, and still had that edge on. (The intake counsellor) ... took her time and did it in a slow, gradual process, she didn't make me tell her everything in one session.

But what I really like as well is...a person to talk to about my life, just what I'm feeling, how things are going, whatever...Just talking to her makes it seem easier and I may come out with my own results, but she's definitely helping resolve a lot of issues.

4. Small size

Some respondents identified the small size of BTC as a factor in facilitating the development of relationships with both counsellors and other mothers.

I really like that even though Toronto is huge, BTC is so small actually, and they give –I was really given a lot of individual attention, and the groups are so small, you know each other and

it's not...it's never been uncomfortable to talk, you know? And it's been small, and you really get to know the people that you work with, and the people who are in your group.

5. Woman-specific programs

All respondents identified the importance of a woman-only program, recognizing that this aspect of the program contributed to their feelings of safety and security in the BTC environment.

Women have problems ... that needs women.

Even the fact that they don't allow (men) to come in the door is a comfort. I mean at first I used to get upset because I was still with my daughter's father, and he used to want to wait here, and I know he'd be out of trouble if he could stick around on the couch and wait for me to finish. But no, they changed that because there was obviously problems with women not wanting them to come in because they don't feel safe with this big, big huge guy sitting there with his long dreadlocks and six-foot-two and scary face. Of course, I wouldn't want to come in either if I didn't know him.

And ... if you don't feel safe, you won't come, you know what I mean? Just like, the two sexes together, it muddles my brain.

Some mothers noted that partners do have access to some BTC programs components if the mother agrees (e.g. parenting support through home visitation, case management).

But I don't know because there have been times when my partner's needed their help, and they've been able to help him ... There have been times when I've had to meet in here for a CAS meeting, or if he needs help with some kind of parenting issues, they're there to help him too, and I appreciate that. You know, I do. I really appreciate that.

6. Counsellor qualities

Focus group participants provided information regarding counsellors qualities that were important:

They've got to know what they're talking about. For me...they had to have been there and done that, at least in some way.

They go the extra mile, like beyond the call of duty, like call me at six thirty, seven o'clock at night because I'd left her a voicemail. And I'm just home at home but she's like, yeah, but you know, it sounded important, so that makes you feel like... they genuinely care. I don't have anyone else, really, I didn't have my family or anybody.

They're interested to hear about my daughter, they're interested to hear about me. You know you'll say one thing and next week they'll surprise you with it. I mean I imagine it must be overwhelming; you're talking to all these women with their children...I mean I talk about my daughter all the time. I could go on and on. But no, they're actually interested in hearing what we do, to get the boring things that we do, and it's like oh! They get excited about certain things, and they're actually happy for me.

My daughter loves (the parent-infant therapist). She looks so forward that she runs and hugs her every time she comes by, and talks to her on the phone....that's how close they are now. And I

*thought, who **does** that, you know? Who talks on the phone to your child to tell her that she'll be back to see her in one week?*

I believe a higher power was working through the interviews when you were deciding who should fill what positions.

Some respondents described counselling situations at BTC that were not successful for them. In the first example below, the respondent described a relationship in which she felt she was placed in a “one-down” position in relation to the counsellor. Women with histories of disempowerment in relationships may be particularly sensitive to this dynamic, as it replicates the “power-over” dynamic that has characterized other relationships (Walker, 2004). In the example below, the validation of the woman’s feelings and experiences provided her with a sense of empowerment in the program.

I had a problem with a counsellor that I had, and I felt she looked down to me, and she was condescending, and I couldn't stand it, and I said I don't want to come here anymore because she's not helping me. But I suppose a few other people might have said the same thing and then she's not here anymore...So then (BTC) was like “Okay, you know, you're feelings are legitimate” and they looked at it, and that made me feel that I was having my feelings validated, that yeah, it wasn't just my insecurities...

Questions about BTC’s partnership with child welfare led participants to describe a range of impacts. The first respondent indicated that the partnership is a barrier for her in disclosing “something you think you’ve done bad”. Others acknowledged the power of child welfare workers and worrying about “mistakes” and “slip ups”, but also recognized their mandate and ways in which they could be helpful.

This program being involved with so many others has stopped me a few times from saying a few things...If it's something you think you've done bad...I've stopped myself from talking about it because ii don't want any more trouble on my plate. And I just felt that I'm going to get support from you guys, but CAS are going to come down on me, and it's not going to feel good. So I would rather deal with this particular issue on my own, and there were a couple of times where I really felt like talking about it, but I just couldn't. Because I understand what they're (BTC) part of, I understand that they're looking at the whole picture, they are trying to keep your child safe – in the best interests of the child, and really for you yourself.

I had a really good worker ... she actually came to meet me (at BTC), so I had them as my support saying “Yeah, ...'s doing all this work” so it made it a lot less intimidating to have to go to their office. You're still worried about a mistake, or a slip-up, or something going wrong, so I was still worried, but after I got the trust, which was hard, but after I got the trust of my worker, a little bit, I got to use her against my baby's father, because I was having a hard time keeping him away...he was still having a hard time staying clean... Most people hate CAS and think okay, they just want to take my child, but this worker actually made me believe ... they do have the child's best interest, and they want to keep the child with the mother if.. if .. you know?

No they're not all bad. I like some of the CAS. They're OK. They're not all bad, they can be a handful, but you know what, with CAS being scary and being afraid of CAS, like they are powerful, but they ... don't care about you. I mean they don't care about you! It's about the kid ... it's about the child's protection, and their best interest. And I'm sure if anyone – if you or me or somebody whose child is being hurt or neglected in some way, I'm sure you guys wouldn't hesitate to call, or even think twice to make that phone call. Because if something should happen

to that child, and you knew about it, that's going to be on your conscience for the rest of your life. I mean, you know, give or take, they're not all bad.

Focus group respondents spoke of the impact of BTC programs on their mothering role.

I didn't know how to be a mom. I didn't know how to play with my daughter, I didn't know how to breastfeed, I didn't know how to..teach her stuff, how old they have to be before you start feeding them solid food, I didn't know nothing, absolutely nothing. And to be on my own and try to figure it out, I really didn't have anybody to turn to.

When I came here, I always thought that I was not a good mother and then they encouraged me, they kind of showed me the ways that I am a good mother. The fact that I'm here. And because of that, I was able to say to myself, "Yeah I'm a good mother" and so my view of my children are definitely different.

I know...and you're like, wow, I was crawling around the street four years ago like it was nothing, and I mean I was fine. I got my sanity back. I have a kid and I'm a good mom, and you know it's sort of neat when people say, you've got a really good relationship with your daughter

All those years when I was pregnant and when she was one and two, and now that she's three, and your hard work and everything is showing now, it's payback time now, all that work's paying off and they're like, wow, you've got a really good kid here, you know. And it's all thanks to learning how to be a good parent.

I mean, can you imagine being a mom without this place? Isn't it nice now for people to say, wow, you're a really good mom?

8. Learning from Other Mothers

They also spoke of the importance of learning through affiliation with other mothers and their children.

So..when they have the ...kid group, you'd watch a woman before you have her child a month or two before you do and you learn by them talking about their experiences, like "Now my child is crawling, now my child is doing this, now my child can say a word" so you kind of know, "Okay this is when it's sort of going to happy, within this time this is what she'll be able to do". And also wondering, what if there's something wrong with my child, because of my using at the beginning, that might not come out right away, but later on down the road, so Dr. Koren checking, and doing those check-ups ...

And yeah, I'm glad I came because I really was coming with a closed mind, and I didn't want to come at all. And it was recommended by Children's Aid. Like I come here still. I come here after I've gone, and I still want to come here. I like coming here, seeing other moms, seeing other babies, and just seeing other people, and knowing you can talk to them, and associate—I don't have any others, I left all my friends behind. So this has been good for me.

My heart went out to the women who was still coming to the groups, and had their children apprehended, and was fighting to get them back, and I was like, you know, I really looked up to those women, because I could see myself with a crack dealer somewhere, not sitting here, just going nuts, nuts and going out there and using because I felt that way. But no, they came and they did anything they had to do to get their children back. And I saw some of them didn't make

it, and they'd be here with their children, and the next thing you know, they're gone, they didn't make it, they went back out and their child is somewhere in a foster home ... and you know that would keep me going, that would keep me coming back here, even through freezing cold winter days..

Focus group respondents identified ways that BTC could have been improved, and needs for other programs and services.

1. Enhanced mental health/trauma services

I found ... some of the individual addiction counselling a little bit limited...if it's going to be limited to the whole language of addiction, then we can't really talk about the causes of addiction...What I mean is, I don't want to talk about cravings any more, I want to talk about why I crave...So at the end of the day I needed more than just an addictions counsellor, I needed a psychiatrist.

I was just diagnosed with a mental health problem...I need medication. If I was maybe pointed into that direction a little bit earlier, I might not have struggled the last two years as much as I did. Maybe you can't have (a psychological assessment) done in the first year because it would be really hard to tell what is from the withdrawal and what is for real, but maybe...if someone's a client here and they've been coming for maybe even just two years, and they're still struggling with the depression, and the really high anxiety or whatever.

And I believe they should have some kind of program, maybe not even in here, that we can learn about some of the drugs that they are prescribing you. Instead of just here, writing up a script and "Take this, it'll make you feel better two, three weeks from now". Because basically what I see in these doctors is, whether they've had an addiction or not, they're substituting one drug for another.

2. Support around relationships with partners

It's about relationships...it seems like, between (other clients) and I, that we have kind of the same involvement in relationships. Because...it feels like a lot of times we're the ones that feel like we're doing the work for the relationship, and trying to straighten out, so if there was a group where you deal with anger for a partners, because sometimes it's like that

Whether we're involved with them now, or trying to deal with situations that we're not going to be involved with them, or don't want to be involved with, whether it be through talking to them. or trying to negotiate or whatever. I still have to deal with him ... I wish I didn't really, but I have to deal with him, you know?

3. Enhanced focus on anger management

Life skills involving anger management is not long enough. I think that's part of addiction, that we have love, anger and resentment built up...That's not based on the addiction, but addiction follows in with that anger and resentment. And I find that there should be more focus on that.

4. Program for fathers with substance use programs

I also think one thing that's missing is a support group for men same as we have here. For the fathers. I have thoroughly done research on support groups for fathers with children, and it's

slim. Rare to none. There are a couple but you know what, they shut them down as fast as they open them up because there's nobody responding. But at the same time either that, or partners' support groups, like where two parents go to a support group....I really feel that there's a lack of support for fathers out there.

Focus group respondents were asked for their input regarding ways in which BTC can be effectively promoted among women.

Advertise yourselves a lot more....billboards, drop-in centres, you know.

You need more Pregnancy Outreach Workers.

I always talk about it. I've been speaking at different meetings and stuff, and treatment centres.

But then of course you get more high volume, and you need more staff, and you need more money, right?

Finally, focus group participants were asked to provide their thoughts regarding women's motivation to make changes in their lives regarding substance use and parenting. The pregnancy and/or child(ren) were cited as primary motivating factors for many women, such as the following respondent.

Well, till I saw the ultrasound lady – I was having an abortion, in my mind, as far as I knew – and for some reason the ultrasound woman brought in pictures of (the baby) and she showed it to me, and I was like, oh my God, I had no clue. I thought it was just a nothing, like you know, and that's the moment I changed. I was like, okay I have a human being here that I have to think of... and she's what made me want to change. If it was just me on my own, I'd be gone a long time ago. She was my motivation...she is my motivation.

Other women noted that, while her child motivated her to consider changes, the unavailability of treatment was a barrier to her being able to access the support she needed.

I have a twenty-two year old daughter, and after I had her, looking at (my) first child...I was looking at her the same way, but I didn't have this (BTC). There was not treatment.

Finally, others noted that while the availability of services and programs were critical to move from women motivation to action, the primary motivation comes from within.

It's not for the kids, it's not from BTC, it's not from AA, it's not from other stuff that helps you, it's from within you.

3.2.6. Building Service and Research Capacity

BTC has built and extended capacity for service and research activities in the area of pregnancy, substance use and FASD.

3.2.6.1 Early Childhood Development Addiction Initiative: Pregnant Women with Addictions

Based on Breaking the Cycle's successful model (Cathexis 2005), the provincial Ministry of Health and Long Term Care (MOHLTC) Mental Health and Addiction Branch launched the Early Childhood Development (ECD) Addictions Initiative, (Pregnant Women with Addictions) in 2002. MOHLTC gave funding to eighteen (18) difference sites across the province of Ontario to serve pregnant women with addictions and their children up to age six. The specific focus of this initiative is on the mothers, on the assumption that healthier mothers will ultimately raise healthier children. The goals of the initiative are:

- To increase capacity in addiction treatment services for pregnant women and/or women with children up to the age of six; and
- To produce positive outcomes for the women who have participated and for the newborns, infants and children up to the age of six years.

The Jean Tweed Centre, BTC Managing Partners, not only sponsors the Toronto ECD project (Pathways to Health Families), but also manages the "Best Practices" project of the initiative. In 2002/2003 BTC provided consultation to Jean Tweed's "Best Practices" program, providing the curriculum and delivering the initial "live training" to the projects across the province.

While the projects have developed unique responses to respond to the needs of the diverse geographic, cultural, and systemic characteristics of their communities, all have incorporated aspects of the BTC model, including collaborative partnership structures; the development of relationships between addiction treatment agencies and child welfare; pregnancy outreach approaches; single-access models; community development; knowledge transfer priorities; and a maternal-child focus (Cathexis, 2005).

The evaluation of the ECD Addiction Initiative (Pregnant Women with Addictions) concludes that initial evidence about community linkages, number of women served, and outcomes for the women is making a difference, and recommends that funding for this initiative continue beyond the end date of the present funding agreement (March 31, 2006) (Cathexis 2005)

3.2.6.2 Breaking the Cycle – A Unique Model for FASD Research

Marina Avner MD, Gideon Koren MD, FRCPC

The Motherisk Program

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At Breaking the Cycle we diagnose and follow-up children exposed *in utero* to alcohol and a variety of drugs of abuse. Because all children reside and attend the clinic with their biological mothers, we have the advantage of a full report on time and doses of intrauterine exposure, as

well as all other confounders, from poverty to depression. Full physical and neurobehavioral follow-up allows optimal study of FASD and determinants affecting it.

To date, a variety of methodologies have been used to study the effects and dose response relationships of ethanol in pregnancy. Because of the shame, guilt and fears associated with alcohol use in pregnancy, there is always a cloud of doubt hanging above the extent and quality of maternal disclosure. The information regarding maternal exposure is often second hand (*e.g.*, family members), third hand (*e.g.*, children's aid), or plain hearsay.

Breaking the Cycle is Canada's first early identification and prevention program for pregnant and parenting women who are using substances and have young children. The program has created a unique research paradigm for the complex challenge of the effects of ethanol on the developing brain in the context of all other confounders, and offers a number of significant advantages.

First, per definition, the mother-child dyad is the client/patient. Hence we meet the biological mothers repeatedly in our clinic.

The mothers disclose a very full picture of their alcohol and drug use. This is the strength of the culture in Breaking the Cycle which is non-judgmental, friendly and supportive.

For cynical readers who may raise an eyebrow thinking that "it is still just mom's word", we have now biological proof of the accuracy and completeness of maternal reports of Breaking the Cycle clients. In three recent cases mothers reported using cocaine only in the first half of pregnancy. Hair analysis of the mothers and babies verified their stories. In all cases the hair sections corresponding to the first half of pregnancy were positive, whereas the section reflecting the last half of pregnancy were negative. (Maternal hair grows at 1-1.5 cm/mo.) As importantly, all babies' hair samples were negative for cocaine. The hair that neonates are born with grows in the last trimester of pregnancy (1).

Breaking the Cycle clients are also highly motivated women, who despite troubling personal histories are very committed to quitting drugs and making positive changes, focusing on their children. This greatly improved postnatal environment, is critical in sorting out how much of the damage seen in FASD is prenatal and how much is postnatal. Working with Breaking the Cycle clients also allows for continuous follow-up to detect emerging or disappearing physical, neurological and neurobehavioral symptoms.

Quite a few of the women report that their own mothers were alcoholics, and quite a few of them have symptoms consistent with FASD. Much more research is needed on multi-generational FASD.

We wish to invite other researchers who follow-up problem drinking biological mothers, to collaborate in this very unique research, which may allow important insight into the most prevalent form of prenatal brain damage.

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3.2.6.3 The BTC Satellite Group and the Toronto Centre for Substance Use In Pregnancy:
A unique hospital-community collaboration providing specialized medical and psychosocial care to pregnant women using substances

Established in 2001, The *BTC Satellite* is a partnership of the BTC Pregnancy Outreach Program, the Parkdale Parents Primary Prevention Project, and St. Joseph's Health Centre – Toronto Centre for Substance Use in Pregnancy. It represented a unique integration the community and hospital-based supports that are accessed by these participants, and provide a holistic and comprehensive service. The *BTC Satellite* consists of a morning group, which is co-delivered by the BTC Pregnant Outreach Worker and a Mothercraft Parent-Infant therapist, and includes the provision of a lunch meal, and child care for those women who have other children. The physicians in the Dept. of Family Medicine have a clinic for the women's prenatal appointments on the afternoon of the *BTC Satellite* group, so that women can access their supports in a single-access model in one day. The hospital's pharmacy has also agreed to carry and dispense methadone (which it had previously not done) in order that the women in the *BTC Satellite* group who are on methadone maintenance programs can pick up their methadone when they are there. The program has become a unique hospital/community collaboration, as well as a unique collaboration between two CPNP projects—collaborations that have been of benefit to all partners but, in particular, to the participants in the program.

- Expanded the services of Breaking the Cycle and the BTC Pregnancy Outreach Program in order to accommodate a 70% increase in the number of pregnant women engaged at Breaking the Cycle since the inception of the BTC Pregnancy Outreach Program
- Established a unique hospital/community partnership serving pregnant women with substance use problems
- Strengthened and formalized the partnership with St. Joseph's Health Centre's Department of Family and Community Medicine (TCUP) in the delivery of integrated and collaborative services for pregnant women with substance use problems

Part 4: Knowledge Exchange

4.1 Training

Over the past ten years, BTC has made a significant commitment to share program learnings and outcomes. Since 1995, BTC staff has trained approximately 15,000

individuals on issues related to pregnancy, substance use, FASD, and the care of substance-exposed children. Evidence-based training and consultation has also been delivered on the development of community-based service responses to care for substance-involved mothers and children. Training and consultation has been delivered locally, regionally, nationally, and internationally (France, England and Australia).

“Pregnancy, Substance Use, Parenting and FASD: Measures of Progress at Breaking the Cycle 1995-2005” at Special Session: Women and Addictions... We Need to Talk, Issues of Substance – Canadian Centre on Substance Abuse National Conference, November 14-16 2005.

“Breaking the Cycle: Community Collaboration to Support Pregnant and/or Parenting Women with Substance Use Problems and their Children”, Scarborough Rotary Inner Wheel Annual General Meeting, October 1, 2005.

“Working with High Risk Women and Children: An Integrated Mother-Child Perspective on FASD”, at Fetal Alcohol Canadian Expertise (FACE) Research Roundtable, Toronto, Ontario, September 9, 2005.

“Dissemination of Project Results - Nurturing Change: *Engaging and Supporting Pregnant Women who Use Alcohol and Other Substances*”, for the Public Health Agency of Canada, Health Canada, Ottawa, Ontario, June 15-16, 2005.

“Engaging Substance-Using Women”, Umbrellas Program, Early Childhood Development Initiative – Addictions Program, Kettlebee, Ontario, June 2, 2005.

“Nurturing Change: Engaging and Supporting Pregnant Women who Use Alcohol and Other Substances”, sponsored by Early Childhood Development Initiative - Addictions Programs, Northwest Region, Addiction Services Kenora, Sioux Lookout, Ontario, May 5, 2005

“Breaking the Cycle: Development, Partnerships, and Services” at Sioux Lookout Community Consultation, Sioux Lookout, Ontario, May 4, 2004.

“Parenting and Substance Misuse: The Significance of Relationships” at Open Bar Seminar Series, 311 Jarvis Court, Toronto Ontario, May 2, 2005

“Motivational Approaches Within the Stages of Change for Substance-Involved Mothers and their Young Children”, at Expanding Horizons for the Early Years, The Infant Mental Health Promotion Project and the Ontario Association for Infant Development, Toronto, Ontario, April 15-16, 2005.

“A Program’s Response to Changing Family and Community Needs: 25 Years of the Mothercraft Parent-Infant Program”, poster presentation at Expanding Horizons for the Early Years, The Infant Mental Health Promotion Project and the Ontario Association for Infant Development, Toronto, Ontario, April 15-16, 2005.

“Before, During and After ... Fetal Alcohol Spectrum Disorder (FASD): An Integrated Maternal and Child Health Issue”, poster presentation at Expanding Horizons for the Early Years, The Infant Mental Health Promotion Project and the Ontario Association for Infant Development, Toronto, Ontario, April 15-16, 2005.

“Parenting and Substance Misuse: The Significance of Relationships & the Experience of Children Living with Parents Who Use”, Substance Use, Parenting and Child Development Symposium, at Expanding Horizons for the Early Years, The Infant Mental Health Promotion Project and the Ontario Association for Infant Development, Toronto, Ontario, April 15-16, 2005

“Breaking the Cycle: Community Support for Substance-Involved Parents and Children”, at Toronto Children’s Services Supervisors’ Network Meeting, Toronto, Ontario, March 30, 2005

“Rethinking Smoking Cessation Strategies for Women and Their Families”, at Tobacco Use During Pregnancy, Centre of Excellence for Early Childhood Development (University of Montreal) and Health Canada (National Projects Fund), Montreal, PQ, March 22-23, 2005.

“Pregnancy and Alcohol Use: Strategies for Support”, at Fetal Alcohol Spectrum Disorder Workshop, Children’s Aid Society of Toronto and Catholic Children’s Aid Society, Toronto, Ontario, March 21-22, 2005

“Pregnancy and Alcohol Use: Strategies for Support” at Fetal Alcohol Spectrum Disorder Workshop, Children’s Aid Society, Catholic Children’s Aid Society, and Operation Springboard, Toronto, Ontario, March 17-18, 2005.

“Pregnancy and Alcohol Use: Strategies for Support”, at Fetal Alcohol Spectrum Disorder Workshop, Children’s Aid Society of Toronto and Catholic Children’s Aid Society, Toronto, Ontario, March 7-8, 2005

“Breaking the Cycle: An Integrated Maternal-Child to Support Pregnant and/or Parenting Women with Substance Use Problems and their Children”, poster presentation at Equality of Access: The Right Thing to Do, University of British Columbia, Victoria, B.C., February 23-26, 2005

“Harm Reduction: Implications for Work with Women Who Use Substances and their Children”, 3rd Annual Early Childhood – Addictions Conference, Toronto, Ontario, February 23-24, 2005

“Pregnancy and Alcohol Use: Strategies for Support”, at Fetal Alcohol Spectrum Disorder Workshop, Children’s Aid Society of Toronto and Catholic Children’s Aid Society, Toronto, Ontario, February 14-15, 2005

“Breaking the Cycle and FASD”, at Aboriginal Community Justice Project Conference, Aboriginal Justice Directorate, Department of Justice Canada and the Ontario Ministry of the Attorney General, Toronto, Ontario, November 29, 2004

“Breaking the Cycle: Support for Pregnant Moms”, at Traditional Prenatal Program, Anishnawbe Health Centre, Toronto, Ontario, November 25, 2004.

“Breaking the Cycle: Community Collaboration to Support Pregnant and/or Parenting Women Using Substances, and their Children, at Program Without Walls (CAPC) and Having a Baby Drop-In (CPNP) Projects in the City of York. Toronto, Ontario, November 24, 2004

“Breaking the Cycle: Community Collaboration to Support Pregnant and/or Parenting Women Using Substances and their Children, at Ontario Works Provincial Meeting, Toronto, Ontario, November 16, 2004.

“Considerations for Programs Serving Women Who Use Substances and their Children” at Heartspace Strategic Planning Meeting, Addiction Services of Thames Valley, London, Ontario, November 5, 2004.

“Effective Strategies in Working with Women with Substance Use Problems”, for Children’s Aid Society of Toronto and Motherisk staff, at Hospital for Sick Children, Toronto, Ontario, November 4, 2004.

“Substance Use in Pregnancy: An Integrated Approach” at The Women’s Health Challenge: Linking Accountability, Sensitivity and Best Practices. St. Joseph’s Health Centre, Women’s Health Conference. September 24, 2004

“Engaging Substance Using Women in Care” at Supporting Change: Preventing and Addressing Alcohol Use in Pregnancy Best Start Train-the-Trainer Program Workshops for Physicians, September 24, 2004

“Substance Use in Pregnancy: A Coordinated Approach”, at Understanding Substance Use in Pregnancy: How Do You Best Support A Woman and Her Unborn Child, Oshawa, Ontario, June 15, 2004

“The SMART Guide: Motivational Approaches Within the Stages of Change for Pregnant Women Who Use Alcohol and Other Drugs”, for Healthy Child Manitoba, STOP FAS Mentor Training, Winnipeg, Manitoba, June 3, 2004

“Breaking the Cycle”, at Children’s Aid Society of Toronto – Scarborough Branch Meeting, Toronto, Ontario, April 22, 2004

“Our Responsibility: A Review of the Child and Family Services Act”, Mothercraft Early Years Centre, Toronto, Ontario, April 14, 2004

“Promoting Effective FASD-related Practices: National training for community-based practitioners working in prenatal and early childhood settings”, Yarmouth, Nova Scotia, March 18-19, 2004.

“Promoting Effective FASD-related Practices: National training for community-based practitioners working in prenatal and early childhood settings”, Charlottetown, PEI, March 15-16, 2004.

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“Parenting and Substance Use”, at Breaking the Cycle: Moving Forward from the Evaluation, Toronto, Ontario, February 6, 2004.

“Promoting Effective FASD-related Practices: National training for community-based practitioners working in prenatal and early childhood settings”, Queen’s County, Nova Scotia, January 22-23, 2004.

“Substance-involved families and their children: An early intervention approach”, at Understanding Neglect: Working Together for Young Children at Risk, Peel, Ontario, January 15, 2004

“Promoting Effective FASD-related Practices: National training for community-based practitioners working in prenatal and early childhood settings”, Gander, Newfoundland, December 3-4, 2003.

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“Use of Videotape in Parent-Infant Psychotherapy”, at Centre Medico-Social Communautaire, Toronto, Ontario, November 18, 2003.

“Interventions with Women and Children who are Substance-Involved” at Early Childhood Development – Addictions Programs, Toronto Region, Toronto, Ontario, November 6, 2003.

“Women, Substance Use, Pregnancy and Parenting”, at Early Childhood Development – Addictions Programs, Northwest Region, Kenora, Ontario, October 28, 2003.

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“Early Interventions in FAS: Approaches for Working with Pregnant Women Who Use Alcohol and Other Drugs”, at Ontario Early Years Orientation Conference, Toronto, Ontario, April 22-24, 2003.

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“Trauma and Addiction: A Dual Recovery”, at Scarborough Addictions Program Training, Scarborough, Ontario, January 31, 2003

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“Women, Substance Use, Pregnancy and Parenting” at Early Childhood Development – Addictions Programs: Central West Region Training, Guelph, Ontario, August 19-20, 2002.

“Breaking the Cycle (BTC): A Community-Based Early Identification and Prevention Program” at the National Conference: The Prevention, Identification and Intervention of Fetal Alcohol Syndrome/Fetal Alcohol Effects for Aboriginal Peoples in Canada, Toronto, Ontario, August 13 – 14, 2002.

“Breaking the Cycle: Strategies for Working with Pregnant Women Using Alcohol and Other Substances” at Program Issues Related to FAS/FAE, Anishnawbe Mushkiki Clinic Staff In-Service Training on FAS/FAE, Thunder Bay, Ontario, June 12, 2002.

“Breaking the Cycle: A Community Response to Substance Use in Pregnancy” at 2002 Aboriginal Fetal Alcohol Syndrome and Fetal Alcohol Effects Training Conference, Ontario Metis Aboriginal Association, Sault Ste. Marie, Ontario, May 15-17, 2002.

“Motivational Counselling with Pregnant Women Who Use Substances” at Northern and Eastern Zone Training for CAPC/CPNP Front-Line Staff, Haliburton, Ontario, May 8-10, 2002.

“Pregnancy and Alcohol/Substance Use” at Sir Wilfrid Laurier High School, Toronto, Ontario, May 6, 2002

“Breaking the Cycle: Bringing a Woman-Centred Approach to FAS Prevention Focused on Pregnant Substance Using Women and Their Support Systems” at Fetal Alcohol Syndrome and Women’s Health: Setting a Women-Centred Research Agenda, B.C Centre for Excellence on Women’s Health, Vancouver, B.C., May 5-7, 2002.

“Redefining ‘failure’: working with substance-using women and their families”, at Annual Michigan Association for Infant Mental Health Conference, Ann Arbor, Michigan, April 21-23, 2002.

“Breaking the Cycle: A Community Outreach Model” at Substance Abuse in Pregnancy: Challenges and Choices, Child Health Network for the Greater Toronto Area, Toronto, Ontario, April 12, 2002.

“Strategies for Working with Pregnant Women Who Use Alcohol and Other Substances” at Ontario Early Years Centres Conference, Toronto, Ontario, March 27, 2002.

“Pregnancy, Addiction, and Working with High-Risk Women” at Forum on Fetal Alcohol Spectrum Disorder (FAS), Homewood Health Centre, Guelph, Ontario, February 25, 2002.

“FAS Information Session” to Parenting Group at LAMP, Toronto, Ontario, November 19, 2001.

“A Review of FAS Activities at the Prenatal and Early Childhood Stages in Canada: A Report on Findings” at Strengthening the Mosaic: Converging Population Health and the Early Years, Minet, Ontario, October 10-12, 2001.

“Breaking the Cycle: A Model of Service for Substance-Involved Women and Their Children in Toronto” at Generating Change, Thames Valley District Health Council, London, Ontario, June 20, 2001.

“Breaking the Cycle: A Model of Service for Substance-Involved Women and Their Children” at Success by Six, Peel Region, Mississauga, Ontario, April 10, 2001.

“Breaking the Cycle (Toronto). The Treatment of Women Who Abuse Alcohol and Other Drugs During Pregnancy” at Canada’s Drug Strategy Division Meeting, Ottawa, Ontario, March 26-27, 2001.

“Enhancing FAS/ARBD Interventions at the Prenatal and Early Childhood Stages: A Report on Findings” at Health Canada CAPC/CPNP Program Consultants’ Meeting, Toronto, Ontario, January 15-16, 2001.

“Breaking the Cycle: Integrated addiction, parenting, healthy child development and early intervention services” at From Molecule to Population – The markers, mechanisms, causes and effects of Fetal Alcohol Syndrome, Research Roundtable, Hospital for Sick Children, Toronto, September 8, 2000.

“Breaking the Cycle: Working with young mothers in addiction and mental health” at Networking in Addiction and Mental Health, Conference of the Centre for Addiction and Mental Health and the Canadian Mental Health Association, London, Ontario, June 22, 2000.

“A review of FAS activities at the prenatal and early childhood stages in Canada: A report on findings” at 2000 Manitoba: Prairie Northern Conference on Fetal Alcohol Syndrome, University of Manitoba, Winnipeg, Manitoba, May 13, 2000.

“A Report on the FAS Regional Education Initiative and Enhancing FAS/ARBD Interventions” at Health Canada Consultation on FAS, Toronto, Ontario, Friday, March 24, 2000.

“Enhancing FAS/ARBD interventions at the prenatal and early childhood stages in Canada” at CPNP – 2000 and Beyond: Manitoba and Saskatchewan Regional Conference, Health Canada, Saskatoon, Saskatchewan, January 13, 2000.

“Enhancing FAS/ARBD interventions at the prenatal and early childhood stages in Canada” at 4th Annual CAPC/CPNP Conference, Health Canada, Severn Bridge, Ontario, September 23, 1999.

“Substance-involved families and their children: An early intervention approach” at Concerns Canada Conference, Institute on Addiction Studies, Barrie, Ontario, July 14, 1999.

“FAS Regional Education Initiative” at Healthy Babies Healthy Children Conference, Toronto, Ontario, June 25, 1999.

“Working with pregnant substance-abusers”, AWARE Conference, Kingston, Ontario, June 4, 1999.

“Breaking the Cycle: An innovative collaboration addressing the needs of mothers who are substance-involved and their children”, at The New Tapestry: Weaving the Threads of Children’s Mental Health, Conference of the Ontario Association of Children’s Mental Health Centres, Toronto, Ontario, May 31, 1999.

“Breaking the Cycle: A model of service for substance-involved women and their children” at From the Community...Population Health in Action, Health Canada, Ottawa, Ontario, May 26, 1999.

“Breaking the Cycle: A model of service for substance-involved women and their children” at Forum on Fetal Alcohol Syndrome, Health Canada, Ottawa, Ontario, May 25, 1999.

“Breaking the Cycle: A Model of services for substance-involved women and their children” Thunder Bay, Ontario, April 22, 1999.

“Towards a program model for substance-involved women and children in Windsor”, Windsor, Ontario, March 25, 1999.

“Breaking the Cycle: Strategies and interventions”, Windsor, Ontario, December 4, 1998.

“Substance-involved families and their young children: An early intervention approach” at National Association for the Education of Young Children: Annual Conference, Toronto, Ontario, November 21, 1998.

“Breaking the Cycle”, Windsor, Ontario, October, 23, 1998.

“Working with substance-involved families” at St. Michael’s Hospital Nursing Education Series, Toronto, Ontario, July 24, 1998.

“Breaking the Cycle: An innovative collaboration addressing the needs of substance-involved mothers and their children” at Innovative Solutions III: Meeting the Needs of Children and their Families, Waterloo, Ontario, June 16, 1998.

“The development of *Breaking the Cycle*: Implications for other communities” at AWARE (Action on Women’s Addictions – Research & Education) Annual Meeting, Kingston, Ontario, May 19, 1998

“Breaking the Cycle: A Toronto model for intervention with mothers and young children affected by substance use” at Public Forum on Substance Use & Pregnancy, Hamilton, Ontario, February 11, 1997.

“Child abuse prevention: CAPC/CPNP experiences” at Working Together: Making a Difference, CAPC/CPNP Provincial Conference, Toronto, Ontario November 3 – 5, 1997

“Breaking the Cycle: A review of the first year” at Pregnancy and Addiction: What About the Babies. Experiences with Intervention, Conference of the Infant Mental Health Promotion Project of Metropolitan Toronto, Hospital for Sick Children, Toronto, Ontario, October 4, 1996.

“Treatment resources for mothers and babies. What to do until appointments begin”, at Substance Use, Women and Parenting, City of Toronto Department of Public Health In-Service, Toronto, Ontario, October 26, 1995.

“Breaking the Cycle: A Canadian model of early intervention for mothers and young children affected by drug use” at First European Conference on Parenthood and Drug Abuse, Cannes, France, September 27-30, 1995.

“Breaking the Cycle: A Canadian model of early intervention for mothers and young children affected by drug use” at Reflecting on Relationships: Internal Working Models, Inner Life of Model Workers, and Inside Models that Work, 19th Annual Conference of the Michigan Association for Infant Mental Health, University of Michigan Ann Arbor, Michigan, April 30-May 2, 1995.

“Parenting issues of substance using mothers” at Demystifying Addictions, Conference of the Ontario Association of Maternity Homes, Toronto, Ontario, April 7, 1995.

”Promoting attachment between infants and parents” at Addressing Pregnancy and Addiction Together, Infant Mental Health Promotion Project of Metropolitan Toronto and Metro Toronto Association of Treatment Services Conference, Toronto, Ontario, March 3, 1995.

“Early intervention with infants and parents affected by substance use” at Pregnancy, Alcohol and Drugs: Community Action for Change, Hamilton, Ontario, November 13, 1993.

“Vulnerable infants, vulnerable parents” at Creating Attachment with the Preterm Infant, Women’s College Hospital, Toronto, Ontario, November 4, 1993.

“Intervention strategies for families with infants” at The Diversity of Infant Experience: Awareness and Action, 17th Annual Conference of the Michigan Association for Infant Mental Health, University of Michigan, Ann Arbor, Michigan, April, 1993.

“Effects of substance use on infants and mothers” at Crack Mothers, Hugh MacMillan Rehabilitation Centre, Toronto, Ontario, April 1993.

“Early intervention with infants and families”, Children and Substance Abuse Conference, Addiction Research Foundation, Toronto, Ontario, February, 1993.

“Early intervention with infants and families”, at Addressing Addiction Together: Focus on Infants, Parents and Professionals, Infant Mental Health Promotion Project of Metropolitan Toronto, Addiction Research Foundation, Toronto, Ontario, September, 1992.

“Effects of substance use on infants and families”, at Rising Above Risk, Infant Mental Health Promotion Project of Metropolitan Toronto, Toronto, Ontario, April 24, 1992.

4.2 Resource Development

BTC has worked with national and regional partners to transfer knowledge and build capacity through the development of resources. Except for the SMART Guide, all resources have been developed in both English and French. With its partners, BTC has developed resources in the form of audiotapes, videotapes, manuals and web-based tool kits as described below. The resources have been used nationally and internationally, and for training across sectors, including early childhood education, child welfare, addictions treatment, corrections, education, children’s mental health, and CAPC/CPNP.

Different Directions: Understanding FAS/E (1998-2002)

This FAS Regional Education initiative, delivered in partnership with Ontario’s North for the Children¹⁶ and funded by Health Canada, assessed the impact of a variety of strategies to deliver FAS education, training and support to Health Canada’s Ontario region CAPC/CPNP project staff, volunteers and community participants in delivering prevention services for mothers at risk for delivering children affected by FAS, and in delivering early intervention services for children and families affected by FAS. Components of this initiative included training on FAS, the creation of professional development resources, and the facilitation of information sharing and increased regional collaboration on this issue. The project components included:

- a. **Teleconferences:** Accessible distance education was provided through a series of eleven monthly teleconferences between June 1999 and June 2000. Presentations were delivered by FAS experts across Canada on topics that ranged from the effects of FAS on infants and children to working with pregnant women using substances, and community prevention of FAS. Participants across Ontario listened to the presentations at their own site at their convenience, and participated in follow-up interactive discussion/question sessions with the presenter following the teleconference. Handouts, presentation materials and discussions on an interactive web conference site supplemented the effectiveness of this training.
- b. **Training Videos:**

¹⁶ Ontario’s North for the children is a coalition of the eight CAPC projects in Northern Ontario.

- i.) “Different Directions: Understanding Fetal Alcohol Syndrome” (2000)
 - ii) “Different Directions: Community Prevention” (2001)
 - iii) “Different Directions: Early Interventions in FAS” (2002)
- c. **Training Manual:** A training manual was designed for use in both train-the-trainer and self-study programs. It was developed to provide opportunities for increasing knowledge about FAS, developing a network with other service providers and parents, reflecting on personal philosophy, attitudes and practices, and increasing awareness of cultural, linguistic and regional relevance of community resources. The training manual and videos are available in English and French.

Enhancing Fetal Alcohol Syndrome (FAS)-related Interventions at the Prenatal and Early Childhood Stages in Canada. 1998-2001 Leslie, M. and Roberts, G. Ottawa: Canadian Centre on Substance Abuse.

Many of Health Canada’s Community Action Program for Children (CAPC), Canada Prenatal Nutrition Program (CPNP) and Aboriginal Head Start (AHS) projects have undertaken Foetal Alcohol Syndrome (FAS)-related activities since the inception of these programs in the early 1990s. The aim of this project, funded by Health Canada’s National Project Fund, was to examine these activities and surrounding issues. Co-managed by BTC and the Canadian Centre on Substance Abuse (CCSA)¹⁷, the project surveyed approximately 1,000 CAPC/CPNP/AHS projects to identify and analyze best practices and service gaps arising from front-line experience. Key informant interviews, together with in-depth examinations of projects demonstrating examples of “good practice”, were used to enrich the learnings from the survey. The investigation confirmed that CAPC, CPNP and AHS projects, in fulfilling their basic mandate, present a milieu that effectively engages high-risk families and is supportive of particular work on FASD. The investigation also identified potential barriers to enhanced FAS activities in these projects, including: perceived mandate, limited funding resources, inadequate training/expertise among staff to undertake certain activities, level of public awareness, existing collaborative activity regarding FAS. The results strongly confirmed the value of locating FAS-related activities within CAPC, CPNP and AHS projects. The project found that these programs are ideally suited to prevent and reduce the harm associated with prenatal substance use and are, in many cases, were currently doing so. It concluded that the prospect for enhancement is great and would be driven by the efforts to share learnings that exist in the CAPC, CPNP and AHS projects and networks. Available for download at http://www.phac-aspc.gc.ca/dca-dea/publications/pdf/enhancing_fas_e.pdf

Demonstration Project to Provide On-Line Training and Consultation on Evidence-Based Practices for Front-Line Practitioners in Health Canada’s CAPC/CPNP Network

In partnership with the Canadian Centre on Substance Abuse, Breaking the Cycle, and Health Canada, this project assessed the use and effectiveness of web-based information, communications, consultation and training approaches to support the adoption of recommended FAS-related practices by CAPC and CPNP programs. This initiative, funded by HRDC’s Office of Learning Technologies, translated the content generated from the *Enhancing Fetal Alcohol Syndrome (FAS)-Related Interventions at the Prenatal and Early Childhood Stages in Canada* to

¹⁷ The Canadian Centre on Substance Abuse is Canada’s principal national NGO addressing substance use.

an internet-based learning environment, and enhanced it with the capacity for web-board intercommunication among participants, and individualized consultation with experts across the country. For more information please visit http://www.phac-aspc.gc.ca/dca-dea/programs-mes/fas-fae_infokit_e.html

The SMART GUIDE: “Motivational Approaches Within the Stages of Change for Pregnant Women Who Use Alcohol: A Training Manual for Service Providers” (2002) Reynolds W, Leslie M, Cassidy S, DeMarchi, G.

Written in partnership with AWARE (Action on Women’s Addictions: Research and Education), and funded by Health Canada, this training guide describes the application of Stages of Change Theory and Motivational Interviewing Strategies to engage and support pregnant women who use alcohol or other substances. It integrates the clinical practice with substance-involved pregnant women at Breaking the Cycle and the work of AWARE in health promotion, training and policy development. The SMART guide has been reprinted by the governments of British Columbia, Alberta, and Manitoba, and is used for training in those jurisdictions. For more information and to order the SMART Guide, contact: aware@kos.net

Nurturing Change: Promoting Effective FASD Practices in CAPC/CPNP and other Early Childhood Settings (2004). Leslie, M. & Roberts, G.

In partnership with the Canadian Centre on Substance Abuse, and funded by PHAC’s FASD National Strategic Fund this manual was written to enhance the skills of service providers working in prenatal and early childhood settings in Canada to:

1. Engage and support pregnant women who use alcohol or other substances
2. Identify and support children who may be affected by prenatal alcohol exposure, and their families

The curriculum was developed for service providers in the Public Health Agency of Canada Canada Prenatal Nutrition Program (CPNP) and Community Action Program for Children (CAPC). It builds on a previous study¹⁸ which confirmed the value of locating FASD-related activities within CPNP and CAPC projects. In addition to CPNP and CAPC providers, it was hoped that the curriculum will be of use to all community-based practitioners working in prenatal and early childhood settings who have contact with women, children and families who may be affected by prenatal alcohol or other substance use. The curriculum assumes a basic foundational knowledge of FASD and related issues, and offers applied strategies and approaches for serving women, children and families who are affected by prenatal alcohol or other substance use. Nurturing Change is available in English and French at www.mothercraft.ca

4.3 Publications

Over the past 10 years, BTC has published reports, articles, and book chapters that have extended the range of knowledge transfer activity related to BTC.

Watson & M. Leslie (2005) The Canada Prenatal Nutrition Program and Breaking the Cycle: A Nation’s Response to Programming for its Most Vulnerable Citizens in J Scott and H ward (Eds).

¹⁸ Leslie, M., & Roberts, G., Enhancing Fetal Alcohol Syndrome (FAS)-related Intervention at the Prenatal and Early Childhood Stages in Canada. Ottawa: Canadian Centre on Substance Abuse, 2001.

Safeguarding and Promoting the Well-being of Children, Families and Communities London: Jessica Kingsley Publishers.

Leslie, M (November 2005). Nurturing Change Toward an Integrated Maternal-Child Perspective on FASD, Native Journal.

Leslie, M (2005). Fetal Alcohol Spectrum Disorder, in Facing the Challenge: Healthy Child Development, Toronto: Ontario College of Family Physicians.

Leslie, M (2006). Breaking the Cycle: The Importance of Relationships, in L. Greaves, N. Poole, and J. Greenbaum (eds.) Canadian Perspectives on Women's Substance Use, Toronto: Centre for Addiction and Mental Health; chapter accepted for publication

Pepler, D.J. & Motz, M., Moore, T., Leslie, M. (2005). Breaking the Cycle: An Intervention Program for Substance-Misusing Women and their Young Children (Paper submitted for publication in *Infant Mental Health Journal*)

Motz, M. & Pepler, D.J. (2005). Prenatal Substance Exposure and Mother-Child Separations: A Cumulative Risk Model (Paper submitted for publication in *Child Development Journal*)

Butler T. Leslie M. (2004). Susan's Story. IMPrint: Newsletter of the Infant Mental Health Promotion Project (IMP), Vol. 39, Spring.

Leslie M, Roberts G. (2004). Nurturing Change: Working Effectively with High Risk Women and Affected Children to Prevent and Reduce Harms Associated with FASD Ottawa: Health Canada

Leslie M, DeMarchi, G. (2004). Engaging Pregnant Women Using Substances: A Review of the Breaking the Cycle Pregnancy Outreach Program. IMPrint: Newsletter of the Infant Mental Health Promotion Project (IMP). Vol. 39, Spring.

Leslie M. (2004). Parenting and Substance Use: The Significance of Relationships. IMPrint: Newsletter of the Infant Mental Health Promotion Project (IMP)., Vol 39, Spring

Leslie M., (ed). (2004). Breaking the Cycle: Moving Forward from the Evaluation., Toronto: Breaking the Cycle.

Motz M, Pepler D (2004). Risk Factors and the Substance-Exposed Child: Understanding the Context. IMPrint: Newsletter of the Infant Mental Health Promotion Project (IMP), Vol. 39, Spring.

Rouleau M, Levichek Z, Koren G (2004). Are Mothers Who Drink Heavily in Pregnancy Victims of FAS? IMPrint: Newsletter of the Infant Mental Health Promotion Project (IMP), Vol. 39, Spring

4.4 Community Networking

BTC participates on numerous community networks, planning groups and committees in order to a) provide input to community planning processes, b) receive information

regarding community planning activities; c) contribute knowledge and expertise; d) share information regarding BTC.

- Canadian Centre on Substance Abuse - FASD Information and Consultation Service Advisory Committee
- FASD Ontario Stakeholders Group
- Toronto Region FASD Coordinating Committee
- FASD Aboriginal Taskforce of Toronto
- Journal of Fetal Alcohol Syndrome International: Editorial Board
- Healthy Babies Healthy Children (HBHC)
- Making Services Work for People
- Ontario Association for Infant Development (OAID)
- Toronto Infant Development Group
- KIDS (Kids Included in Daycare Services)
- Infant Mental Health Promotion Project of Toronto (IMP)
 - Steering Committee
 - Education Committee
 - Network for Healthy Children – Parents with Severe Mental Illness.
- Toronto Area Women's Addiction Services Cluster (TAWASC)
- St. Michael's Hospital – Inner City Health Program
 - Women's Health Community Advisory Panel
 - Women at Risk Subcommittee of the Women's Health CAP
- Toronto Drug Treatment Court
 - Operations Committee
 - Community Advisory Committee (BTC Director is the chair)
 - Women and Children's Issues Subcommittee
- Jean Tweed Centre Pathways to Healthy Families Project
 - Community Advisory Committee
- Young Parents No Fixed Address
 - Young Parents No Fixed Address Toronto Network
 - Young Parents No Fixed Address – St. Michael's Hospital Pilot

Part 5: Future Directions

The BTC Steering Committee met for a facilitated strategic planning session on February 16, 2005. The meeting was convened to review the activities of Breaking the Cycle over the past 10 years and to set broad directions that will guide the activities of the program over the next 5 years. All BTC partner agencies were represented at the meeting, together with representatives of related programs in the community in an effort to consider community capacity, to build on existing services, and to avoid duplication.

The following strategic goals were identified for Breaking the Cycle:

- To continue to engage in knowledge exchange activities based on learnings and findings emerging from Breaking the Cycle services and programs
- To establish a web-based clearinghouse on practice-based research and resources related to pregnancy, substance use, parenting and FASD issues.
- To establish service partnership with Ministry of Corrections – Probation and Parole
- To establish a strategy for support to crown wards who are pregnant and/or parenting with substance use problems; and for support to crown wards with suspected or confirmed FASD
- To implement and evaluate a family planning/pregnancy prevention strategy as an FASD prevention strategy.
- To explore the development of a strategy to provide service and research follow-up of BTC children
- To explore the development of a strategy to provide service and research follow-up of BTC mothers.
- To explore the development of a pilot project, (CAST, CCAS, and Motherisk), to examine strategies to ensure the continuity of information for BTC children in foster care
- To provide training and consultation to the justice system regarding clients with FASD in the justice system, custody and access decisions involving parents with substance use problems, etc.
- To advocate for the development of services for substance using parents and their children age 6 years and older.
- To explore the development of support groups for women re grief and loss

BTC has a commitment to re-evaluate BTC vis a vis gaps and needs in the community, and to attend and respond to the voices of women in the program.

5.1 Program Development

5.1.1. Integration of Domestic Violence Programming

In response to the high rates of domestic violence experienced by women at BTC, funding has been approved by the Ontario Victims Services Secretariat, Ministry of the Attorney General to develop, deliver and evaluate a group that addresses the impact of domestic violence on child

development, parenting, and substance use recovery with women who are attending BTC. The program will be delivered within the context of the existing substance use treatment, parenting and child development programs offered at BTC. It will provide education, information, and a safe opportunity for women to explore and process information regarding their past and present victimization, and to explore its impact on their parenting, their recovery, and their children's development through a holistic and integrated approach.

The goals of the project are:

- i. To increase participant knowledge regarding the impact of domestic violence on substance abuse recovery
- ii. To increase participant knowledge regarding the impact of domestic violence on child development and child maltreatment
- iii. To increase participant knowledge regarding the impact of domestic violence on parenting processes.

It is further anticipated that the project will demonstrate the benefits of delivering a domestic violence group or intervention within an integrated service model that acknowledges and addresses co-existing conditions of risk for women and children, including substance abuse, child maltreatment and parenting problems.

The pilot will be evaluated, and a group facilitation manual will be made available electronically (www.mothercraft.ca) and in hard copy.

5.1.2. Integration of Programming to Support Employment

To support BTC mothers seeking to access education or employment, a new service partnership between BTC and Operation Springboard's Successful Employment Strategies program was launched in the fall 2005. Through this partnership, BTC participants will have access to individualized counselling that will prepare them for employment. In this partnership, an Operation Springboard counsellor will attend BTC on a weekly basis to attend to counselling regarding educational upgrading, vocational counselling, and other supports towards employment. This partnership further extends the range of on-site supports and interventions available to BTC women and mothers.

5.1.3. Extending Interventions to Children with FASD in Foster Care

With the aim of providing enhanced support to the caregivers of BTC children who enter foster care, BTC will extend supportive home-based interventions to foster caregivers through the Mothercraft Parent-Infant Program. Through support to foster parents and other caregivers, interventions will include strategies that promote the stability of the placement and facilitate caregiver-child interactions. Together with early diagnosis, a stable and nurturing early environment is a salient protective factor against the development of secondary disabilities (Streissguth et al., 1996; Centres for Disease Control 2005). Children with prenatal alcohol and other substance exposure may have regulatory, behavioural and learning problems that may make them more challenging to understand and care for. The aim of this new initiative is to decrease placement disruptions for children with FASD and other substance-related disorders by providing support and enhancing the confidence of caregivers.

5.2 Research/Evaluation

5.2.1 Canadian Institutes of Health Research Grant: Evaluation Treatments for Substance-Using Women: A Focus on Relationships

With the support of a CIHR Grant, BTC will build on its 10-year history of evaluation with a study that will identify the processes underlying change in the women and children served at BTC. The CIHR grant will allow for the use of a control group design, which will allow for the comparison of the results of outcomes.

Study Investigators: Dr. Debra J. Pepler (York University), Dr. W. Craig (Queen's University), Dr. M. Motz (Mothercraft); Prof. Jennifer Jenkins (University of Toronto), Dr. Zohreh Yaghoubzadeh (University of Toronto), Ms. Margaret Leslie (Mothercraft)

This five-year CIHR grant (January 2006 – December 2010), will support an enhanced evaluation of BTC using a control group. This project to evaluate treatments for substance-using women emerges from a CIHR NET grant in which all six of the investigators are involved entitled: “Preventing Violence in the Lives of Girls and Women: A Focus on Relationships”. The proposed research focuses on two intervention programs for substance using women. One program, Breaking the Cycle (BTC), has been the focus of the child maltreatment domain of the NET project. BTC is an intervention program for substance-using mothers. It focuses not only on maternal addiction problems, but also on the mother-child relationship and child functioning. The other program, Options for Change (OFC), is a community-based addictions program serving both men and women. It was chosen as a comparison program because it offers gender-specific substance use treatment for women, but without specific services related to the maternal-child relationship, and without including children in programming. The first objective of the proposed research is to compare the efficacy of these different approaches to the treatment of women's substance use. The general hypothesis is that a focus on women in their maternal role will be more effective in reducing substance use and in improving women's functioning than a program in which the maternal role is not focus. The second objective of the project is to examine the processes of change for mothers and their children when they are engaged in BTC. We hypothesize that bi-directional influences between mothers and their children will be evident. Specifically we expect that an improvement in mothers' functioning will influence an improvement in children's functioning through the mother-child relationship. Similarly, improvements in children's functioning are expected to influence maternal behaviour and mood. If evident, bi-directional relationships between mothers and their children will provide support for treatment models that prioritize women's roles as mothers.

5.3 Knowledge Exchange

Breaking the Cycle has been approved for funding through the Community Initiatives Fund, Canada's Drug Strategy, to publish a collection of papers - "The Integrated Mother-Child Experience: Lessons Learned by Breaking the Cycle" – designed to transfer experiences and knowledge developed at BTC.

Over the past decade, the partner agencies of BTC have evolved a unique management model that has legally enabled them to apply their professional expertise, as well as build new cross-sectoral and cross-disciplinary professional competencies in working as partners to deliver integrated mother-child services. Many of the staff of partner agencies have delivered papers at their respective professional conferences describing how BTC operates differently from other agencies and their experience of how the integrated mother-child approach has affected inter-generational drug use and the family experience of substance use recovery. Over the past 10 years, BTC staff have provided training to over 10,000 service providers, policy makers and researchers across Canada and internationally. Some of their research findings and insights have been published on their own agency website or in their respective professional journals.

This collection of papers will serve as a comprehensive guide on our experience to delivering integrated mother-child services for mothers and children who are substance-involved. The guide will consist of a collection of papers written by BTC partners and other program supporters from their different professional perspectives. It will provide other communities across Canada with the knowledge gained from BTC's first ten years of operation, will answer frequently asked questions, provide practical professional practice guidance for potential and/or emerging partnerships in other communities wanting to work together to replicate this approach.

It will be available in English and French in March 2007, in hard copy, electronically and on CD-ROM.

Part 6: References

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Appendix 1:

Breaking the Cycle Service Agreement

THE PARTIES TO THIS AGREEMENT ARE:

1. Mothercraft; and
The Jean Tweed Centre,
who are referred to as the Managing Partners of Breaking the Cycle;

- and -
2. The Motherisk Program, Hospital for Sick Children;
Children's Aid Society of Toronto
Catholic Children's Aid Society
Toronto Public Health
St. Joseph's Health Centre
who are referred to as Partner Agencies of Breaking the Cycle

DEFINITIONS:

In this Service Agreement:

1. Breaking the Cycle is a program for women who are involved with drugs or alcohol, and are pregnant or have young children six years of age and younger. Its goals are:
 - a) Early identification and engagement of pregnant and/or parenting women experiencing substance use problems to break the cycle of inter-generational patterns of addiction and reduce the risk of mother-infant health problems, developmental delay or child maltreatment.
 - b) Develop and implement, through an innovative inter-agency partnership, a single access, transdisciplinary model program to collaboratively integrate services to pregnant and/or parenting women experience substance use problems and their children, addressing maternal addiction and recovery issues, infant and child development issues, the mother/child relationship, and larger family issues.
 - c) Design and conduct an evaluation to assess the short and long-term outcomes of an early identification and education, prevention and intervention support program targeted at this high-risk adult-child group; and the effectiveness of cross-sectoral partnership in implementing a single access, transdisciplinary model program integrating mother/child services for a high-risk population. To document and widely disseminate the evaluation assessment to assist other communities in replicating this model approach elsewhere.

ADMINISTRATIVE RESPONSIBILITIES OF THE MANAGING PARTNERS:

1. The Managing Partners jointly manage Breaking the Cycle in accordance with:
 - a) The goals and objectives of Breaking the Cycle as described in the project proposal dated February 28, 1994.
 - b) The terms and conditions of the current contract with Health Canada's Community Action Program for Children.
 - c) The annual operating budget and plans for Breaking the Cycle as approved by Health Canada's Community Action Program for Children.
2. The Managing Partners jointly prepare and submit to Health Canada:
 - a) An annual operating plan and budget request.
 - b) Quarterly financial statements and, following the end of each fiscal year, an annual audited financial statement;
 - c) Quarterly progress reports, statistics and any other reports as may be required from time to time by Health Canada.
3. Mothercraft will be the financial administration agent for Breaking the Cycle.

This responsibility includes:

- Maintaining an appropriate set of auditable accounts
- Monitoring in-year expenditures against the budget
- Receiving grant funds from Health Canada
- Receiving any other monies, such as donations

4. Mothercraft will be the personnel administration agent for Breaking the Cycle.
This responsibility includes:

- Acting as the legal employer of Breaking the Cycle staff, who are not on secondment from the Jean Tweed Centre
- Providing payroll services
- Developing position specifications, in consultation with the Jean Tweed Centre
- Recruitment, in consultation with the Jean Tweed Centre
- Supervision of the BTC Program Manager, in consultation with the Jean Tweed Centre

5. Mothercraft will be the owner and manager of all assets on behalf of Breaking the Cycle.
This responsibility includes:

- Ensuring appropriate insurance coverage
- Undertaking of leases or rental agreements
- Acting as the purchasing agent for Breaking the Cycle furniture, equipment, software and other capital assets, in consultation with the Jean Tweed Centre
- Disposal of obsolete and/or redundant items, in consultation with the Jean Tweed Centre

PROGRAM RESPONSIBILITIES OF THE STEERING COMMITTEE

1. The Steering Committee for Breaking the Cycle will consist of:
 - Executive Director, Mothercraft (Co-chair)
 - Executive Director, Jean Tweed Centre (Co-chair)
 - A representative of the Motherisk Program, Hospital for Sick Children
 - A representative of Toronto Public Health
 - A representative of the Children's Aid Society of Toronto
 - A representative of the Catholic Children's Aid Society
 - A representative of the St. Joseph's Health Centre
2. Each partner will:
 - Contribute staff who deliver services at Breaking the Cycle and/or funding and/or consultation
 - Supervise their staff
 - Ensure that an agency representative participates in bi-weekly clinical team meetings
 - Act as the liaison for communications within their agency.
3. The Steering Committee will:

- Discuss and develop program operating policy for Breaking the Cycle for final approval by the Managing Partners;
 - Provide input into program management issues as necessary;
 - Receive monthly reports on operations;
 - Receive input from the Community Advisory Panel.
4. The Steering Committee will normally meet every six weeks or at the call of the Chair:
5. The Program Manager and Program Coordinator of Breaking the Cycle will:
- Provide staff support for the Steering Committee
 - Represent staff on the Steering Committee

AGREED:

Date:

For: Mothercraft

Date:

For: Jean Tweed Centre

Date:

For: Toronto Public Health

Date:

For: Children's Aid Society of Toronto

Date:

For: Catholic Children's Aid Society

Date:

For: Hospital for Sick Children

Date:

For: St. Joseph's Health Centre

Appendix 2: Focus Group Questions

Focus Group Questions – BTC Clients

- What do you like about BTC?
 - In what ways has BTC helped you? Your children?
 - How is BTC different from other programs that you have been to?
 - What has it been like to attend a program where many agencies are partners and work together?
 - How has this coordinated approach worked for you?
 - What has it been like to attend a program which has a variety of services and service care providers on site?
 - Has having these services available made a difference to you and your children?
-
- What type of support from BTC have you found the most helpful for you? For your children?
 - What, if anything, has changed for you through attending BTC? For your children?
 - What, if anything, has changed in your relationship with your children since you started coming to BTC?
 - What, if anything, has changed in your relationship with other service providers/professionals since you started coming to BTC?
 - What has been too difficult to change for you or in your relationship with your children?
 - Are there any ways that differences in BTC could have helped you make difficult changes?

- What do you think are important qualities for a counselor or therapist to have?
- How did you find about BTC?
- Why do you keep coming to BTC?
- Could you help us to understand why some women do not keep coming to BTC?
- Could you suggest some changes so that more mothers would start or keep coming to BTC?
- What do you think could be improved at BTC?
- Do you have any other suggestions for program changes/services/groups (e.g., craft programs, massage therapy, art therapy, meditation, yoga)? Other comments?

Focus Group – Pregnancy Outreach

- How did you get involved in the BTC group?
- How did you meet Nerina?
- What was helpful about meeting Nerina?
- Did it help that she met with you out in the community versus going to an agency or office?
- What supports did she provide that were helpful? Are there any other supports that would have been helpful?
- What referrals did she make that were helpful? Are there any other referrals that would have been helpful?
- What qualities does she have that are the most important to you? Are there any other qualities that would have been helpful?
- What do you think of the group? Why do you come?
- Is it easy to come to the group?
- Does it make any difference that the group takes place here at the hospital versus an agency or office?
- What is different about this group than other groups you may have gone to?
- Do you feel like you are able to get information about your pregnancy and your addiction in this group?
- What supports from the group are most important to you?
- What do you think could be improved about the group or about the job that Carolin or Nerina does?
- Do you have any other suggestions for program changes? Other comments?

APPENDIX 3: THE SUSAN STORY

The Susan Story is based on the case histories of three clients of Breaking the Cycle, and it represents the stories of the majority of the women and children seen in the program. "The Susan Story" was published in IMPrint, Vol.39, 2004.

THE SUSAN STORY

Tracey Butler (former Program Coordinator, Breaking the Cycle)
Margaret Leslie, Director, Early Intervention Programs, Mothercraft

Susan is aged 2 and lives with her mother in a one-bedroom apartment. Susan's mother drinks alcohol. Her father is in jail on fraud charges. There is very little money and Susan is often hungry. Before her father went to jail, he used to hit her mother. This makes Susan feel scared. Sometimes her mother would be lying on the floor and have blood all over her face. Sometimes she would not get up for a long time. Sometimes after her mother was hit, she would hit Susan. There are parties at the house and lots of people come over. They make so much noise that she can't get to sleep. There are often fights at the parties and the police come. They do not notice Susan who is hiding in the closet of the bedroom. After the parties at the house her mother is sick. Susan has to be very quiet or her mother will shout at her.

Over the years Susan's mother has a boyfriend. Sometimes late at night he comes into her room and touches her in a way that makes her feel scared and yucky. He gives her candy after and tells her that he loves her, that it is their secret. He tells her that her mother would be very angry with her if she knew about it. Susan has discovered that if she looks at the ceiling she can imagine she is a bird flying high in the sky and this helps her feel better. The boyfriend hits her mother and each day she drinks more and more.

Susan struggles during her school life. She has difficulty making friends. She has trouble paying attention in class. She worries about fitting in. She worries about going home. When she is 13 she starts to skip school. No one seems to notice. She goes to the arcade in town. She meets others just like her, and they seem to like her. They even let her hang out with them. She enjoys their company and they share their cigarettes with her. When they offer her some glue to sniff, she doesn't hesitate.

In the 10th grade Susan just doesn't go back to school. She spends more and more time away from home. Eventually she moves out to sleep on a friend's couch. They spend their days on the street asking for spare change. People shout at her, they ignore her, they spit on her, but sometimes she gets lucky and they give her money.

By age 17 Susan is often in trouble with the law. She has been unable to hold down a job. She has to steal food and clothes to get by. She moves from rooming house to friends' couches to other rooming houses. She can't keep up the rent; she is now drinking daily and has been working on the streets for the last year. Her dates pay her more money if she doesn't make them wear a condom. She would rather make the money. She understands the rules of the street, she knows whose territory is whose.

Susan has a few bad dates. She is raped but the police don't want to take a report. She is a known prostitute. She is beaten and robbed. She drinks before and after working. She doesn't eat for days. Although she is underweight, she feels fat and ugly. When she eats she feels disgusted in herself. Her stomach feels bloated and she makes herself vomit. She is afraid of gaining weight. She wants to feel in control.

Susan spends a lot of her time hating herself and feeling afraid. But Susan makes sure that people are afraid of her. You can't work the streets if they know you are scared. She feels like she will burst with the anger she feels. She starts to burn herself with cigarettes and cut herself with a razor. She likes the way that it feels. Like air coming out of a balloon, relief, and a sense of control. If a date gets out of hand she cuts herself and it really freaks them out.

At age 18 Susan has a boyfriend, Gary, who was one of her regular dates. He works in a bar and wants her to move in with him. He tells her that he doesn't like her working and that he will look after her. Susan likes the way that this feels. He must really love her. Her welfare is cut off because Gary works. Gary drinks a lot. One day Susan comes back home after shopping and he accuses her of working again. He punches her in the face and drags her around the room by her hair; he kicks her in the stomach and leaves. Later he comes back and tells her that he's sorry, and says it will never happen again. He says that he's jealous because he loves her so much, and he just loses it when she's late getting home. He makes her promise that she'll call him when she's out. Susan thinks that he must really love her to be that angry. Over the next year Gary has hit her a few times every month. He calls her names like "fat ugly bitch" and "whore". He tells her that if she were not so fat and lazy he wouldn't have to hit her. She has no friends, she is afraid to go out, she has no money. Gary brings home the food and alcohol. Gary brings home the crack. Susan starts to smoke it and it feels great. Gary makes her go out and work again to make the money to buy more. He will be her pimp.

Susan can't sleep, she can't eat, she feels trapped and afraid and out of control. She smokes crack to get high, she smokes crack to escape. She drinks to come down; she takes pills to come down. And when there's no money, she cuts. Susan tries to remember how she got here. There must be a better life, but where? Susan takes an overdose of pills and alcohol.

After a 3-day admission to a psychiatric unit at her local hospital, Susan is discharged. She doesn't want to go home, and is discharged to a shelter. The social worker at the hospital gives Susan her card and an appointment. She doesn't keep the appointment and loses the card. One night after drinking Susan returns to the shelter and is discharged. They find her a bed in a detoxification centre. She stays with them for 3 weeks. The counselors are nice. But she experiences alcohol withdrawal. In her second week, she starts to have nightmares about her childhood, feelings of being suffocated. She is scared that Gary will come looking for her. She finds that she is unable to shake these thoughts and, in groups, she floats off. Most of the time her hands are shaking, she feels such a terrible anxiety. She can't drink or smoke crack so she cuts herself, and she feels better. But a few days later her dreams are back. Susan can't take it. She leaves to have a drink, and goes back home to Gary.

Over the next 6 months, Susan has been assaulted by Gary 10 times. She has been to an emergency room 3 times. She is back working as a prostitute again and smoking crack daily. She has been stabbed by a date; she has had one abortion and one miscarriage. She is deaf in one ear from being punched in the head and her nose has been broken. She lives between Gary, the detox centre, hostels and the street. When she can't smoke crack, she drinks; when she can't drink or smoke she cuts herself. She binges and purges on food. Susan takes another overdose of her anti-anxiety medication and alcohol.

At age 20, Susan is in a detox and decides that she has had enough. She has had 14 admissions there in the last year. She stays at the detox until a bed becomes available in a treatment centre. She struggles with her nightmares, and feelings of wanting to cut and use. She completes the program at the treatment centre and moves into a small, furnished room. She is able to remain abstinent for 3 months. She lives in poverty: her rent is \$400 and she struggles on the remaining \$125. She travels to food banks, her aftercare meetings, and she has even joined a self-help group. Having the money to keep her appointments is difficult ... the places are so far apart. She has a few slips and starts to feel like a failure. Susan returns to active use.

At age 21 Susan is pregnant by a date. She finds this out in her 5th month. She is smoking crack and drinking. She did not gain any weight. She hasn't had a period for over a year. Susan has mixed feelings. She can't connect with herself and she doesn't feel pregnant. She sees a doctor three times. She doesn't say that she is drinking or smoking crack. She is afraid that they will take her baby away. So she tries to cut back on her own.

Susan has a 6 lb. baby girl. She calls her Emma. She is able to rent a one-bedroom apartment in a low rent neighbourhood in Toronto. But she struggles to make ends meet on her welfare cheque and her child tax credit. Her rent is \$550 a month and this leaves her with \$550. It is expensive to buy diapers and to feed herself. The hydro bills, the telephone bills, the Laundromat, the baby's clothes, the bedding, the crib, the stroller. The money she has is soon gone.

Susan has high hopes for this baby, she wants the best for her, and she is filled with love. She is breastfeeding and want to spend time with Emma but she is so demanding. Emma cries a lot and Susan never gets a break. She doesn't know anyone she can trust. She feels anxious and alone. She starts to drink a little more each week. She tells herself that it helps her relax with Emma.

Time moves on.

Emma is a 2 year old and she lives with her mother in a one-bedroom apartment. Emma's mother drinks alcohol.

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APPENDIX 4: FROM BTC PARTICIPANTS

To: Breaking the Cycle staff

I've been in and out of a million places
Evil and shame on everyone's faces
Violence and filth everywhere I looked
I tried to get out, but was desperately hooked.

I have a Guardian Angel who watches over me.
She guides and protects me, and helps me to see
Things I could not see before.
She shines a light and opens a door
To a life of forgiveness, health and love,
Peace and an unmerited gift from above.

I pray every day that I'll never return
To those horrible places, the memories still burn.
Each day is a blessing and a treasure to be clean
The deepest depths of hell I've been through and seen.
Another day in paradise as Phil Collins would say.
I can't afford to forget, so I constantly pray.

Anna is more than I could ever have hoped.
I found so much support to help me to cope.
There's no turning back, I'm not the person I was.
Life made no sense to me, now it sure does.
Learn about recovery and the right thing to do.
I couldn't have done it without help from you.

My deepest gratitude.....

H

MY COUNSELOR

I WAS UNSURE, NOT SURE IF SHE CARED

WAS SHE LIKE ALL THE REST

I MISSED MY APPOINTMENTS, NOT GOING TO
GIVE ME AWAY

UNTIL ONE DAY, SHE SMILED AT ME
IN SUCH A TRUSTING WAY

BEFORE I KNEW IT, I WAS GIVING ME
AWAY

YET, SHE WAS AWARE, SHE LET ME TALK
SO MANY DIFFERENT WAYS

MAYBE IT WAS MY HEART, OR SHE USED TO
BE MY WAY

SHE OPENED HER ARMS TO BRING ME IN,
SHE FELT ALL MY PAIN

I WAS ABLE TO OPEN UP AND BRING HER INTO MY SHAMEFUL WORLD. SHE
HELD MY HAND AND GUIDED ME TO THE RIGHT WAY.

UNTIL THE DAY I HAD TO GO AWAY, (SHE) HELD MY HAND AND SQUEEZED IT
ONE LAST TIME.
SHE OPENED HER ARMS WITH TEARS IN HER EYES AND WATCHED ME FLY AWAY.

LOVE ...

[THANK YOU FOR HOLDING MY HAND THROUGH ALL MY BUMPY SPOTS AND
NEVER GIVING UP ON ME]