

BREAKING THE CYCLE (BTC) - 20 YEARS OF BREAKING RECORDS IN MANAGING ADDICTED MOTHERS AND THEIR YOUNG CHILDREN

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Addressing the needs of addicted mothers and their young children is a major challenge worldwide, marred by high failure rates and breakage of the mother-child dyad. The multidimensional impacts of addiction, compounded by psychiatric co-morbidities, neglect, abuse and poverty, make the task of “breaking the cycle” an uphill battle and very often against all odds. In 1994, a coalition of Toronto-based organizations dealing with the social and medical aspects of child care, inaugurated BTC with the hope of creating an effective and sustainable model to support these mothers and their children. With no map to guide such a journey, it was clear that the team will have to create its own map, as well as the textbook that will inform the path. The inaugural team visited different institutions in North America, identifying what seemed as best practices, although often these practices were not anchored in strong evidence of effectiveness. The approach selected was eclectic in its nature, covering addiction counseling, child care and parenting skills, medical aspects, child protection, to mention a few. Critically, it was agreed among the founding partners that a climate and framework of continuous learning and research should be developed to guide BTC practices, so that the effectiveness of the processes involving in improving the abilities of the mothers to care for themselves and their young children can be documented though qualitative and quantitative research.

As presented in the 20 year research event on November 27 2014, it is very clear that these targets have been achieved. BTC team members and students have been involved in a wide range of research including the diagnoses of the mother and child, identification of risks and protective factors, and effective methods of management and

therapy. For the sake of the 20 year celebration, the focus was on a large research project funded by the Canadian Institutes of Health Research, comparing BTC treatments of the mother-child dyad with a control group of mothers in Kingston Ontario, where the treatment focuses on the mother without involving the child.

In this short report I will share my remarks after listening to the presentations and reading the scientific reports produced by the group, all in the context of the powerful effects BTC has on this emerging field.

Mother-child relationship, cumulative child risks and developmental outcomes

It is intuitively sensible that a dynamic balance between the quality of mother-child relationship vs. cumulative child risk, will define outcomes of IQ and neurobehavioral functioning. However, validation and quantification of such trends are difficult to prove due to the complexities of defining each of the elements of this equation.

Motz and colleagues studied 40 infants-children/mother dyads, where the mothers were substance users.¹ They aimed to clarify the role of the quality of mother-child relationship in modifying cumulative risk for children to be adversely affected in their neurobehavioral functioning and IQ. Mother-child relationship quality was measured retrospectively using the validated Parent-Infant Relationship Global Assessment Scale from the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood: Revised Edition (PIR-GAS). The Cumulative Risk Index was created by the authors using potential prenatal and postnatal risk factors previously identified in the literature, acknowledging that “a cumulative risk scale...was unavailable in the literature”. The Scale includes 12 pre-natal and 23 post natal factors, each of which scores one point.

Neurobehavioral and IQ measurements were done on these children as part of their participation in BTC. Analysis of this cohort revealed that the quality of the mother-child relationship significantly mediated the direct relationship between cumulative risk and neurobehavioral functioning, and cumulative risk correlated with IQ indirectly through mother-child relationship. The authors concluded that the quality of mother-child relationship plays an important role in determining young children's outcome in this high risk group. Several methodological challenges make the interpretation of these results less straight forward:

The Cumulative Risk Index, although anchored in known risk factors has not been validated. A brief review of the list of pre-natal risks reveals that many items dealing with maternal drinking are overlapping and not mutually exclusive. Because this tool is critical for the core activities of BTC, it would make a lot of sense to further validate, including factor analysis that may eliminate some items.

It is quite reasonable to assume that mothers endorsing high cumulative risks also have, for the same reasons, a tendency toward low quality of relationship. Mental disease, addiction, neglect and many other causes may affect both the cumulative risk index as well as the quality of interaction. Under these circumstances it is difficult to prove cause and effect, as co-linearity must be considered and resolved.

Comparing a novel relationship-focus intervention (RFI) and standard integrated treatment (SIT)

Over the years BTC has developed a novel relationship-focus intervention, where the central focus is on promoting healthy maternal relationships with particular emphasis on fostering mother-child interactions and hence the mother-child dyad is the central piece of the intervention. In contrast, SIT involves primarily the mother, while the child is involved only tangentially by providing basic parenting information. In this study 65 BTC women receiving RFI were compared to 25 mothers receiving SIT in Kingston, Ontario.²

Compared to their baseline, both groups decreased their use of substances. The BTC-

practiced RFI approach was associated with better improvement in substance use. Moreover, more women from BTC improved their mental health than in the comparison site, and the BTC women improved significantly their relationship capacity. The BTC children, even those exposed in utero to substances, did better when their mothers had relationship- focused intervention as compared to the control group.

Within the BTC group, improvement in relationship capacity correlated with greater decrease in their substance abuse. This, however, cannot be used as a proof of causation, as it is possible that those who improved in both aspects are a more resilient and of characteristics that improve both aspects in parallel. Moreover, not being a randomized trial, it is possible that the overall environment at BTC is more favorable and affects positively maternal and child outcomes in ways which are not intervention-specific. Ethically though, BTC could not randomize mother-child dyads not to receive their special, eclectic relationship-focused intervention. This of course can be done by other centers, but they will have to decide whether the study described here allow them to give the SIT protocol. The principle of clinical equipoise dictates that one cannot randomize patients to receive therapy shown to be inferior to another intervention.³

The science developed in BTC over the last 20 years was effective in drawing a new map for identification of at risk cases, understanding their determinants of risk and managing them. The multidisciplinary team, the open mindedness, the critical appraisal of existing and new methods, all helped in creating new climate, where mothers can break the cycle and start new and positive one.

**Gideon Koren is the Chair of BTC Steering Committee.*

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