Minimizing the Social and Financial Costs of Childhood Conduct Disorder:

Building Upon the SNAP® Foundation

A highly recognized Canadian model – being replicated around the world, endorsed and supported by the Canadian National Crime Prevention Centre

CHILD DEVELOPMENT INSTITUTE

Successful implementation of evidence-based practices requires a long-term, multi-level, multimodal approach. Organizational readiness and support, and system level support, can facilitate successful implementation within a larger context of innovation and change.

Children's Mental Health Ontario (CMHO, 2006), Barriers to the Implementation of Evidence-based Practices

WHY FOCUS ON CONDUCT DISORDERED CHILDREN?

Conduct Disorder (CD) is the most common reason for referral to children's mental health centres in North America. Because of the prevalence and long-term negative impact of such problems the cost of children with untreated CD is enormous. Poor lifespan outcomes include persistent criminality, poor vocational and social functioning, mental illness, increased rates of hospitalization, family and parenting dysfunction and substance abuse. Not including indirect, social and victim costs, children with CD have been conservatively shown to consume 7-10 times more resources than children who do not experience this disorder. The largest proportion of these costs is associated with youth crime, which, in Canada, is typically assumed under provincial ministry funding streams.

The prevalence of conduct disorder in children 6-11 years of age is approximately 6.5% for boys and 1.8% for girls, which translates into a conservative estimate of 33,000 children for example in Ontario alone. If we arbitrarily assume that a third of these children will outgrow CD (or we remove the least severe third of this population), this still leaves about 22,000 moderate-to-severe cases requiring specialized assessment and treatment.

There is consensus in the scientific literature that the early identification and treatment of children with marked conduct problems hold the best promise for preventing youth crime and maximizing population health outcomes. In short, it becomes harder and more expensive to treat CD as children grow older. As accountability frameworks are increasingly being applied to children's mental health service systems, it makes sense to invest in evidence-based, early approaches that consistently produce positive treatment outcomes. In this regard, the **STOP NOW AND PLAN (SNAP®) program has proved to be an exemplary model.**

A COMPREHENSIVE COLLABORATIVE CRIME PREVENTION APPROACH: HELPING YOUNG CHILDREN in CONFLICT WITH THE LAW

Early identification and targeted interventions are the key – not only for young children and their families, but for the communities and service providers that bear responsibility for the healthy development of our children. Our approach in the Centre for Children Committing Offences at the Child Development Institute is remarkably straightforward which is why we are being called upon from an ever-expanding range of professionals to facilitate and implement our comprehensive, three-stage crime prevention strategy: 1) **police-community referral protocols** that navigate at-risk children through the system in a timely manner to appropriate service providers; 2) **structured clinical risk assessment** that gauges the risk of future antisocial potential and treatment needs for targeted children; and 3) **gender-sensitive STOP NOW AND PLAN (SNAP®) programs** that are tailored to meet the clinical needs of aggressive and antisocial children and their families.

OUR COMPREHENEIVE, COLLABORATIVE 3-STAGE CRIME PREVENTION STRATEGY:

POLICE-COMMUNITY REFERRAL PROTOCOLS
Directs at-risk children to "ready" services in a timely manner

STRUCTURED CLINICAL RISK ASSESSMENT
Using the Early Assessment Risk List (EARL) approach

STOP NOW AND PLAN (SNAP®) GENDER SENSITIVE PROGRAMS
Designed to meet the needs of antisocial children in conflict with the law

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STAGE 1

EFFECTIVE REFERRAL MECHANISMS: POLICE-COMMUNITY PROTOCOLS

What is the value of knowledge about offending careers if this knowledge cannot be applied to the everyday operations of organizations working with high-risk children? -- Howell (2003)

In 1998, the Centre for Children Committing Offences (CCCO) in partnership with the Toronto Police Service led the development of a Toronto police-community referral protocol for young children (under 12 years of age) committing offences. Prior to the implementation of the ***Toronto Centralized Services Protocol for Children in Conflict with the Law in Conjunction with the Toronto Police Service*** in February 1999, there was no formal, city-wide referral mechanism prompting an immediate response to high-risk children engaging in antisocial behaviours. What emerged over the development phases of this project, was that young children were clearly 'falling through the cracks'. The **first of its kind in Canada**, this community mobilization project brought together **Toronto Police and Toronto Fire Services, child welfare agencies, school boards, and other children's service agencies** (e.g., SAFE-T: Sexual Abuse: Family Education & Treatment Program) to **establish a single-entry access point** through a **Central Intake Line** housed at Child Development Institute. Based on the success of this project (as indicated by two phases of evaluation led by the CCCO), the Toronto Protocol **became a model for other Canadian communities**. It has been replicated in a number of communities in Ontario and initiated province wide in Manitoba (TurnAbout).

A police-community protocol is an essential component of a crime prevention strategy, and as such, should be given consideration in *every* jurisdiction where effective referral mechanisms for at risk youth are lacking. The development of such protocols facilitate collaboration among stakeholder groups across service sectors. Aside from producing system change in a relatively short period of time, usually within six months police-community referral protocols also tend to increase awareness among service providers about the availability of services, foster opportunities to network and submit joint applications for funding, and generate a better understanding of system issues facing children under 12.

STAGE 2

COMPREHENSIVE, EVIDENCE-BASED RISK ASSESSMENT: THE EARL APPROACH

For crime prevention programs and initiatives to be effective, they must address the specific needs of a defined target population. Prior to 1998, no assessment scheme was available to identify specific domains of risk for antisocial children under the age of 12. Addressing this gap in professional practice, researchers and practitioners at the Centre for Children Committing Offences were the **first to develop a comprehensive psychosocial clinical risk assessment framework specifically focused on young children in trouble with the law**. The first scheme for boys appeared as a "consultation edition" in 1998, and has since been updated to a Version 2. A parallel, professional scheme for girls was issued as a "consultation edition" in 2001. These schemes, the **Early Assessment Risk List for Boys** (**EARL-20B**; Augimeri, Koegl, Webster, & Levene, 2001) and the **Early Assessment Risk List for Girls** (**EARL-21G**; Levene, Augimeri, Pepler, Walsh, Webster, & Koegl, 2001) have **received international acclaim** – they have also been included as an endorsed assessment tool in Scotland's Risk Management Authority's Risk Assessment Tools Inventory Evaluation Directory (RATED Version 2: see www.rmascotland.gov.uk/home.aspx) and are being used extensively in Canada, Scandinavia, New Zealand, Australia and the United States. The schemes have **been translated** into Swedish, Norwegian, Finnish, Dutch, and are in the process of being translated into French. The importance and relevance of the schemes was recognized by the National Crime Prevention Centre and Justice Canada who supported the initial development, piloting and validation of the schemes through discrete project funding. More recently, the schemes were selected for a National Demonstration Site Project as the preferred guide for screening very young offenders who have been charged with criminal offences in Miami-Dade County, Florida, United States of America. At this point in time, to the best of our knowledge, the **EARL schemes are the most relevant clinical structured risk assessment frameworks for antisocial children** as indicated by their standing in a recent book dedicated to evidence-based child and youth forensic assessment tools (see *Mental Health Screening and Assessment in Juvenile Justice* (2005; Grisso, Vincent, & Seagrave, Editors).

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STAGE 3

AN EVIDENCE-BASED MODEL FOR HIGH RISK CHILDREN AND THEIR FAMILIES: SNAP® APPROACH

BACKGROUND: SNAP® (STOP NOW AND PLAN) is an award-winning evidence-based, gender sensitive manualized multi-modal cognitive behavioural program developed at the Child Development Institute[1] more than 25 years ago. The SNAP® Under 12 Outreach Project (SNAP® ORP) was initially launched in Toronto, Canada in 1985 with funding support from the Ontario Ministry of Children and Youth Services. In 1996, the program became gender specific with the introduction of the SNAP® Girls Connection (SNAP® GC). The girls program is being funded by the philanthropic community. SNAP® helps children and parents deal effectively with anger by teaching them to stop and think before they act - - responding in a way that makes their problems smaller, not bigger. With help and practice, children and parents are able to stop, calm down and generate positive solutions at the '*snap of their fingers*.'

WHY DOES SNAP® WORK?

SNAP® is targeted toward children with behaviour problems and those most likely to "flip" into the youth justice system by addressing key ingredients of their antisocial behaviour – inadequate impulse control and problem solving skills. It works because the concept is easy to learn; skills are taught and practiced in a real and meaningful way, and children are enabled to generalize their learning to everyday life. SNAP® targets a need that is often not addressed by general health programs offered to young children and their families and is the foundation of our gender specific multifaceted, multi-systemic interventions designed specifically for children in conflict with the law. Ground breaking brain imaging research conducted in Canada at the Hospital for Sick Children and the University of Toronto, is showing changes in the ventral and dorsal brain regions of SNAP® children who improved significantly from pre to post intervention. In addition, they are finding that successful SNAP® families are able to "repair" after engaging in a difficult parent – child interaction.

TRANSFERRABILITY AND ADAPTATION

Our experience in disseminating SNAP® is that, with adequate training and support, this program can be successfully replicated and implemented with fidelity in a variety of settings. SNAP® fits in the classroom, in clinician's office and at home. The program can be situated in a variety of diverse community settings and real life community conditions.

SNAP® FOR SCHOOLS

The idea is not a new one; Child Development Institute (CDI) ran a school-based program for a number of years. There was also a successful SNAP® for school model funded by Ramsey County Children's Mental Health Collaborative. The pilot study was a collaborative effort between the St. Paul Public School's Department of Special Education; CDI in Canada that developed SNAP®; and Ramsey County's ACE program, an intervention for very young offenders who have significant problems with behavioural self-control. The preliminary results of the St. Paul Public School's pilot study of "SNAP® a cognitive behavioural intervention for children with serious behaviour problems indicated that the "pilot project in St. Paul Public Schools represents a replication of a key element—the children's SNAP® group - - without the supporting intervention components. To find positive results despite this change indicates, once again, that SNAP® is a robust intervention. From the perspective of school counsellors and principals, this pilot project indicates that SNAP® can be effectively implemented as a stand-alone intervention. Although the comprehensive model is no doubt more effective (and school counsellors express a strong interest in adding the parent component), SNAP® is a valuable addition to the school counsellor's "tool box" of options for working with children who have serious behaviour problems at school." The following were some of the key preliminary findings:

- fewer discipline issues

[1] Services described in this document were created at Earlscourt Child and Family Centre which. in 2001. became one of two legacy agencies constituting Child Development Institute

- overall improvement in behaviour outside the SNAP® group setting (e.g., class, playground)
- improvement in behaviour during the SNAP® group session
- By mid-intervention, marked improvement in the classroom

More recently, interest has resurfaced in offering the SNAP® strategy to elementary and middle school aged children in a number of communities across Canada. For example, some of the current interest has culminated in the following new initiative: Toronto School Based SNAP® (established in 2005) – offered with the Toronto District and Toronto Catholic District School Boards in partnership with the Ministry of Children and Youth Services and Child Development Institute (CDI). CDI has presented SNAP® to a number of Safe Schools Forums which include representatives from the police, administrators, and other school personnel.

SNAP® School-Based Model:

Target children receive SNAP® in their classrooms alongside other children who have not been previously identified as having behaviour problems. Classrooms are selected if they contain at least two children who have been identified by a teacher, social worker or an administrative staff as displaying above-average levels of behavioural problems. The program is set up so that a select number of classrooms in each participating school receive the intervention during the academic year.

Selected classrooms participate in SNAP® activities for 12 week duration. All weekly sessions are facilitated by a trained SNAP® Leader in conjunction with a school social worker or child and youth worker. Teachers remain in the classroom for each group. Sessions are typically 45 minutes each (to accommodate curriculum and classroom activities), and are given in a standardized order. Identified children are also assigned SNAP® mini-assignments that help to reinforce lessons taught during the classroom session. Each weekly session ends with a brief relaxation period facilitated by the SNAP® Leader.

A HIGHLY DECORATED PROGRAM

Public Safety Canada / Sécurité publique Canada

OJJDP Model Programs Guide

HELPING AMERICA'S YOUTH
WWW.HELPINGAMERICASYOUTH.GOV

FIND youth INFO
www.FindYouthInfo.gov

Not all evidence-based programs are created equal. In fact, the SNAP® Model has achieved the highest levels of recognition from independent reviewers who rate evidence-based programs. In 2008, the Canadian *National Crime Prevention Centre* designated it as a 'Model Program,' in 2007 it was designated as an 'Exemplary Program' by the U.S. Department of Justice's *OJJDP* because of its robust treatment outcomes, and in 2006 it was given the highest effectiveness designation (Level 1) by the U.S. Whitehouse program *Helping America's Youth* (now called, *FindYouthInfo.gov*). Research on this program began in 1985, and is continually evolving, with internal and external rigorous research evaluations of SNAP® consistently demonstrating positive treatment effects over time with notably large effect sizes.

Because of its longstanding connection with research activities, the SNAP® program, and its related assessment and community coordination crime prevention approaches, has garnered international interest among leading scholars and senior health policy officials in:

Norway	- National replication initiated by the Royal Ministry of Children & Family Affairs in 2004 & translation of the EARLs
Scotland	- Regional replications through the National Health Service initiated in 2004
Sweden	- Multiple replications initiated in 2003 in addition to wide use of EARL risk assessment tools
Sale, Australia	- SNAP® Training and Community Mobilization, August 2008
London, England	- Endorsement letters by Dr. David Farrington (University of Cambridge) and Chris Cuthbert, Senior Policy Advisor, Prime Minister's Strategy Unit

Miami-Dade, USA - SNAP® selected as part of an OJJDP National Demonstration Project in 2003; evaluation led by Dr. Paul Frick (University of South Florida) and Dr. Richard Dembo (University of South Florida)

Pittsburgh, USA - Largest SNAP® Community of Practice is launched with two SNAP® pilot sites in January 2008 and a third site in summer of 2009; research and evaluation study to be led by world renowned researcher on child delinquency Dr. Rolf Loeber and Dr. Jeff Burke, University of Pittsburgh – Medical Center.

BUILDING UPON THE SNAP® FOUNDATION IN ONTARIO

A recent feasibility study supported by the Centre of Excellence for Child and Youth Mental Health at Children's Hospital of Eastern Ontario revealed considerable interest in developing a SNAP® Community of Practice in Ontario, led by the Centre for Children Committing Offences at Child Development Institute. Specifically, SNAP® users indicated that:

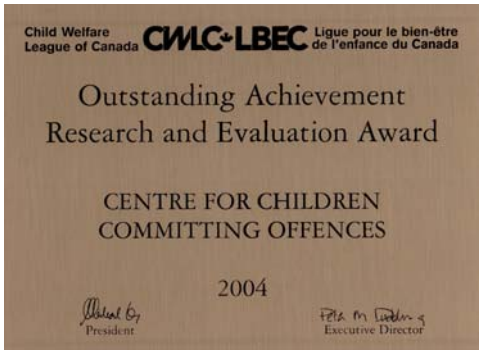
- There is a demand for ongoing training and consultation to address issues related to program implementation and fidelity to treatment;
- The capacity to perform ongoing research and evaluation is extremely limited and requires additional technical support to ensure that local replications are proving effective;
- Organizations are open to the idea of cross-collaborations based on geography and other factors such as language and culture;
- A variety of community-building mechanisms were endorsed in addition to face-to-face meetings, such as web-based support, electronic resources and teleconferencing.

The congruence between these findings, CMHO recommendations regarding evidence-based care (see page 1 setting quote), and the Ministry of Children and Youth Services (MCYS) policy framework for children's mental health in Ontario (November, 2006) indicates that the Centre for Children Committing Offences (CCCO) is headed in the right direction with respect to bringing mental health service providers together to serve conduct disordered children.

EXPERTISE OF THE CENTRE FOR CHILDREN COMMITTING OFFENCES (CCCO)

Home of SNAP®, the mission of the CCCO is to advance knowledge and evidence-based solutions for communities dealing with children under the age of 12 who have had, or are at risk of having police contact resulting from their aggressive and/or antisocial behaviour. Our goal is to work with professionals to seal the cracks in our systems to address youth violence and to prevent crime through the strategic application of effective and reliable assessment, treatment and community coordination approaches. With a Canadian focus and international presence, our centre works collaboratively with researchers, policy makers, policing, front-line clinicians and other professionals to promote research and inform social policy, offer training, and disseminate knowledge so that communities have, at their fingertips, the very best of the model programs and approaches to prevent at-risk children from experiencing a life of crime and incarceration. The CCCO has the requisite consultation experience to facilitate these interconnections, in addition to the clinical and research expertise to build local capacity.

The Centre for Children Committing Offences was publicly recognized in 2005 for its contribution to improving the lives of children and families through its research and evaluation activities focused on SNAP®, structured clinical risk assessment approaches and police-community protocol development. **Recipient of the Child Welfare League of Canada inaugural Outstanding Achievement Research and Evaluation Award,** the CCCO was recognized as a leading Canadian organization "that performs and produces outstanding research and/or evaluation reports that contribute to improved outcomes for children and families."



From:
Koegl, C.J., Augimeri, L.K., Ferrante, P., Walsh, M., & Slater, N. (2008). A Canadian programme for child delinquents. In R. Loeber, N. W. Slot, P. van der Laan, and M. Hoeve, (Eds), *Tomorrow's criminals: The development of child delinquency and effective interventions,* (pp. 285 - 300). Aldershot: Ashgate.

Appendix 1

A Canadian Programme for Child Delinquents

Christopher J. Koegl, Leena K. Augimeri, Paola Ferrante,
Margaret Walsh and Nicola Slater

Child delinquents have received special attention in Canada over the past several decades. Through the *Young Offenders Act* in 1985 in Canada (which was replaced by the *Youth Criminal Justice Act* in 2002) the minimum age of criminal responsibility was established at 12, which means that delinquent children under that age cannot be criminally prosecuted. Provincial and territorial child protection statutes stipulate that delinquent children who are not adequately supervised can be deemed 'in need of protection' and, as such, apprehended. Once under the purview of the child welfare system, families can access a range of remedial services, although there is wide variation across Canada in terms of the extent to which child protection statutes specifically address disruptive and delinquent behaviours by young children, and even greater differences across provinces and territories in terms of the range of services available to them once they enter the child welfare system.

In the years following the implementation of the *Young Offenders Act*, child welfare systems across Canada were not responding in any systematic manner to this group of high-risk youths, and addressed child protection matters and not child delinquency *per se*. In addition, children's mental health services in Canada geared towards meeting the specific needs of this population were virtually non-existent (Augimeri, Koegl & Goldberg, 2001). Also lacking were reliable referral mechanisms to direct at-risk children to appropriate services and risk assessment procedures geared specifically to the types of issues faced by these children and their families.

In an effort to address these gaps, the Child Development Institute in Toronto began to develop a comprehensive, gender-sensitive approach to respond to children under age 12 in conflict with the law (Figure A.1). The Institute (which is an amalgamation of the former Earlscourt Child and Family Centre and the Crèche Child and Family Centre) is a multi-service, not-for-profit, community-based organisation with a history of over ninety years of working with high-risk, disruptive and delinquent children and their families.

The central features of our approach are as follows:

- referral mechanisms that facilitate direct access to relevant services;
- clinical risk assessment procedures geared toward children in conflict with the law, and
- gender-specific evidence-based interventions tailored to the needs of this

population of children and their families.

In the sections that follow, we describe these components in reference to supporting research.

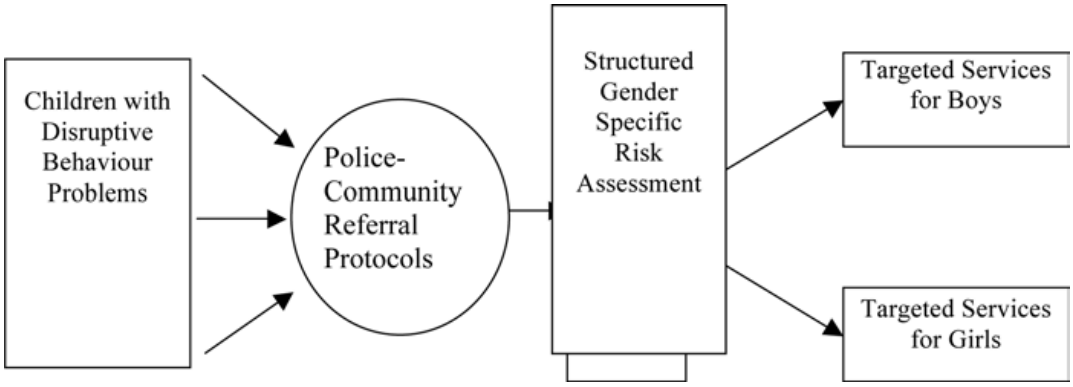


Figure A.1 A comprehensive approach to responding to children in conflict with the law

Referral Mechanisms: Police-Community Protocols for Children under Age 12 in Conflict with the Law

In 1997, when the Child Development Institute spearheaded a task force in Toronto to explore the feasibility of developing a community-wide referral mechanism for children under age 12 in conflict with the law, we began with the simple idea that access should be direct (that is, a single entry point) and timely (that is, contact with potential service providers should be made immediately). As police officers are important stakeholders in that they are usually the first responders when children get into serious trouble, it was decided that they should be integrally linked to any plan that directs at-risk children and their families to specialised mental health services.

With no legal authority under the Canadian Criminal Code to initiate formal proceedings based on a child's misbehaviour, early research on the police response to these children revealed that they typically have returned children to their parents, or in more serious cases, referred families to community-based agencies providing general programmes or to a child welfare agency (Augimeri, Goldberg & Koegl, 1999). The absence of formal police policies and procedures across Canada with respect to handling this population of young people (Augimeri et al., 1999) was considered undesirable as it means that some children and their families will not have equitable access to evidence-based programmes. Moreover, not having a single-entry access point also makes it difficult to gauge the extent of the problem as there is no primary organisation monitoring the number or severity of referrals. This point is particularly relevant in the context of developing community-level crime prevention strategies. It is often important to understand at the outset the number of young children who are at risk of becoming adolescent or adult criminal offenders.

By having a centralised entry point, the volume of referrals can be monitored over time.

To overcome these limitations, the Child Development Institute worked with the Toronto Police Service and other organisations to develop a city-wide protocol. The first of its kind in Canada, this community mobilisation project brought together the Toronto Police and Fire Services, children's aid societies, school boards, child mental health and other child service agencies to establish a single-entry access point through a Central Intake Line housed at the Child Development Institute. Signed on 1 February 1999, this protocol mandates that the fifteen participating organisations make referrals to the Child Development Institute within forty-eight hours, which – if the family agrees to participate – triggers a more in-depth clinical assessment within five working days.

From the beginning, however, it became clear that the protocol is a 'living agreement' in that in order to assess its effectiveness and maintain a steady flow of referrals, there must be constant communication and coordination among protocol stakeholders. In the seven years that the protocol has been in place, we have been able to identify a number of key ingredients and challenges associated with such an endeavour. Specifically, we have learned that there needs to be:

1. *A protocol champion*, or a person within a lead organisation who coordinates and corresponds with partnering agencies to: a) assess and monitor the volume of referrals, b) determine whether children are being admitted into services, c) inform referral sources about the status of referrals (for example, whether families followed through with treatment), d) determine whether partnering organisations are actively participating in the referral process, and e) ensure that staff are adequately trained to provide services. The protocol champion should also be in a position to mobilize local stakeholders and resources, and/or secure external funding when needed to support its continued development.
2. *A protocol marketing strategy*, which aims at ensuring that front-line personnel within participating organisations (that is, those most likely to encounter at-risk children) are aware of the Protocol and know how to make a referral through the Central Intake Line. For example, in Toronto, a Protocol poster was widely distributed to elementary schools, community centres, police and fire stations, child welfare offices and children's mental health centres to advertise the Protocol. We learned, however, that many of these posters were either never displayed or were removed over time. This led us to extend our marketing efforts beyond the poster itself to key personnel within our community who occupied positions of influence, and who could ensure that their staff would become aware of the Central Intake Line.
3. *An ongoing protocol* is needed at the point of referral but also during the provision of clinical services. For example, we know that families are more likely to consent to treatment if referring police officers assume a compassionate rather than authoritative stance when making a referral through the Central Intake Line (Coombs, 2005).
4. *A process for ongoing dialogue between the referral source and service provider.* Our normal practice with the Toronto Police Service is to inform

> referring officers about the status of their referrals. In the absence of providing this information, we have found that there is a tendency for officers – especially in cases where the family does not pursue treatment – to become cynical about the efficacy of the protocol, which has historically led to a reduction in referrals.

Two phases of evaluation indicate that the protocol has helped to seal a significant crack in the system by bringing organisations together to serve this specific population of young people. From these positive evaluations, and the fact that protocol costs are relatively low, the protocol model has been subsequently replicated in eight other communities across Canada, which includes a province-wide protocol in Manitoba. With these referral mechanisms in place, it is now possible for any child in these communities to access specialised services in a timely fashion based on an assessment of his or her unique criminogenic risk factors and needs. In the following section, we describe two gender-specific tools that were designed specifically to assist with the assessments. Researchers and practitioners at the Child Development Institute were the first to develop a comprehensive psychosocial risk assessment framework specifically focused on young children in trouble with the law.

Gender-Specific Childhood Risk Assessment Tools

Early work by Loeber (1982, 1990, 1991) and CDI researchers (Day 1998; Day & Hunt, 1996) helped to shape our thinking as we began to develop a structured risk assessment scheme for young children. Our first attempt at an assessment list consisted of fifty-three items (Augimeri & Levene, 1994, 1997), which was later condensed into twenty factors, each of which was scored on a three-point scale (0–not present, 1–possibly present, 2–definitely present). This format was adapted from other recent attempts to devise structured clinical guides, such as the Hare Psychopathy Checklist-Revised (Hare, 1991) and the HCR-20 (Webster et al., 1997).

Fairly early in the development process, it became apparent that separate tools for boys and girls were needed, as it was important to consider that childhood risk factors may not be the same or may operate differently for boys and girls across developmental stages (Moffitt et al., 2001). Accordingly, we first began working on a draft version of the tool, dedicated specifically to the assessment of potential of disruptive and delinquent behaviours in boys (Augimeri et al., 1998). Version 2 of the EARL-20B (*Early Assessment Risk List for Boys*) was published in 2001 (Augimeri et al., 2001) after an extensive literature review and consultation with leading experts in the field. Soon after the release of Version 2, we published a parallel Consultation, Version 1 of the *Early Assessment Risk List for Girls* (EARL-21G; Levene et al., 2001). Most of the EARL-21G item headings parallel the EARL-20B headings, although the content of items and coding guidelines differ in as much as the research literature revealed gender differences in the manifestation and influence of individual risk factors. Two distinct items, *Caregiver-Daughter Interaction* and *Sexual Development*, were added, and one item – *Authority Contact* – was subsumed

under *Antisocial Behaviour* to yield a 21-item tool for girls. Table A.1 lists the items included in the *Early Assessment Risk List for Boys* (EARL-20B, Version 2) and the *Early Assessment Risk List for Girls* (EARL-21G, Version 1).

Table A.1 Items in the early assessment risk list for boys and girls

Family (F) Items	Child (C) Items	Responsivity (R) Items
Household Circumstances	Developmental Problems	Family Responsivity
Caregiver Continuity	Onset of Behavioural Difficulties	Child Responsivity
Supports	Abuse/Neglect/Trauma	
Stressors	Hyperactivity/Impulsivity/ Attention Deficits (HIA)	
Parenting Style	Likeability	
Antisocial Values and Conduct	Peer Socialisation	
Caregiver-Daughter Interaction (*)	Academic Performance	
	Neighbourhood	
	Authority Contact (+)	
	Antisocial Attitudes	
	Antisocial Behaviour	
	Coping Ability	
	Sexual Development (*)	

Note: (+) Item specific to the EARL-20B; (*) Item specific to the EARL-21G.

Research on the EARL-20B

In moving the EARL-20B from a Version 1 to a Version 2, it was necessary to evolve the tool within a research context so that basic psychometric properties such as reliability could be established. To do this, our first study of the EARL-20B, Version 1 tool measured the basic inter-rater reliability through a prospective study of twenty-one boys and their families admitted into the SNAP™ Under 12 Outreach Project (ORP; more fully described below). Results showed moderate-to-good inter-rater agreement based on the total score (Hrynkiw-Augimeri, 1998). Qualitative findings further suggested that the tool was especially helpful in providing clinicians 'with a thorough assessment procedure, a guide to gear the treatment interventions, and a barometer to evaluate whether a child was still considered high-risk at post intervention' (Hrynkiw-Augimeri, 1998, p. 31).

As part of a more stringent evaluation, we tested the reliability and predictive validity of the EARL-20B through a follow-up of a large sample of ORP-treated children (Hrynkiw-Augimeri, 2005). Files of 379 boys who received the ORP between 1985 and 1999 were retrospectively coded using Version 1 of the EARL-

20B (120 of which were common files to assess reliability). Results from this study revealed a highly acceptable level of correspondence between the three raters with intra-class correlation coefficients ranging from 0.79 to 0.97. To assess validity, a search of correctional records was used to determine whether each study child had subsequently committed delinquent acts. Using a median-split based on the distribution of total scores, chi-squared analyses revealed that boys scoring high on the EARL-20B were statistically more likely to have accumulated one or more criminal convictions than those who had a low EARL-20B score over the eight-year follow-up study period.

External evaluations of the EARL-20B, Version 2, have yielded similarly encouraging findings using a variety of clinician-derived measures of disruptive behaviours. Researchers tested the inter-rater reliability of Version 2 with children referred to seven child and adolescent psychiatric units across Sweden (Enebrink et al., 2001). Kappa statistics indicated good agreement for most of the individual EARL-20B items (mean=0.62, range=0.30–0.87), whereas intraclass correlation coefficients for Total, Child and Family subscale scores indicated excellent agreement (0.90–0.92). Enebrink and colleagues (in press) extended the scope of this study to nine child psychiatric clinics in mid-Sweden. Again, good inter-rater reliability was achieved for most of the individual EARL-20B items (average=0.62), and excellent inter-rater agreement for the EARL-20B total score (0.92).

The predictive validity of the EARL-20B was also assessed prospectively by the same researchers for a sample of seventy-six clinic-referred children (Enebrink, Långström & Gumpert, 2006). An examination of baseline, six-month and thirty-month follow-up assessments of reactive and proactive aggression and disruptive behaviours (conduct problems and DSM-IV Conduct Disorder) revealed that the EARL-20B was more consistently and strongly associated with these outcomes compared to unstructured (non-EARL-20B) clinical evaluations, providing strong support for its use as a clinical decision-enhancing tool.

Research on the EARL-21G

To date, a number of studies have been completed on the EARL-21G – all of which have produced similar positive findings to the EARL-20B in terms of the clinical utility, reliability and validity of the tool. The first of these studies (Levene et al., 2004) was a retrospective examination of the reliability and validity of the EARL-21G. Like the previously mentioned retrospective study for boys, a search of criminal records was performed in order to determine long-term involvement in crime. Intra-class correlation coefficients were calculated for total scores derived from three coders who assessed thirty common files.

Encouragingly, moderate-to-high agreement between raters was found, with statistically significant positive Pearson correlations of 0.64, 0.65 and 0.84, and intra-class correlation coefficients of 0.67 (single measure) and 0.86 (average measure). In terms of official delinquency, total scores derived for sixty-seven files were used to divide the sample at the median to compare the prevalence of offending between the bottom (mean=12.7, range=5–17) and top (mean=22.3, range=18–30) ends of the distribution. Official conviction data showed that, overall, only eighteen out of sixty-

seven (27%) of the girls were found guilty of committing an offence at follow-up, and although higher EARL-21G scores were related to more offending (34% versus 20%) the difference between the two groups failed to reach statistical significance.

We subsequently repeated the inter-rater reliability coding exercise prospectively using seven clinicians who rated twelve common case files (see Levene et al., 2004). In this study, a higher rate of agreement was achieved with an overall Pearson correlation of 0.81 and intra-class correlation coefficients of 0.80 (single measure) and 0.96 (average measure). All correlations were significant at or beyond the 0.01 level.

With at least some evidence to suggest that the EARL-21G is a reliable and valid index of risk, Child Development Institute researchers began to explore the relationship between individual and overall risk scores and responsiveness to treatment (Walsh et al., 2007; Yuile et al., 2007). For these studies, a team of researchers and clinicians generated pre-admission EARL-21G profiles for a total of 162 girls who received the SNAP™ Girls Connection. Behaviour symptoms were assessed by teachers and parents (using the Child Behaviour Checklist and Teacher Report Form; Achenbach, 1991, 2001) at admission, post-treatment, and at six, twelve and eighteen-month follow-up intervals. Mixed model analyses were used to investigate the association between behavioural assessments and the EARL-21G total score and specific Child (for example, abuse, peer socialisation, sexual development) Family (for example, stressors, parenting style, caregiver-daughter interaction) and Responsivity risk factors. This analysis showed that total EARL-21G scores predicted problem behaviours at admission and treatment outcomes. Girls with high total-risk scores tended to show lower levels of change during treatment than girls with low total-risk scores. Moreover, the following individual risk factors significantly predicted elevated problem behaviours at admission: Supports, Parenting Style, Caregiver-Daughter Interaction, Antisocial Values and Conduct, Abuse/Neglect/Trauma, Hyperactivity/Impulsivity/Attention Deficits, Peer Socialisation, Academic Performance, Sexual Development and Coping Ability. Girls who scored high on the gender-specific EARL-21G factor, Sexual Development, displayed particularly complex constellations of risk and less responsiveness to treatment. These findings illustrate a real benefit of the tool, in that it can assist clinicians in a scientifically valid way to identify factors (or more generally, individuals) that warrant special attention during the course of treatment.

The SNAP™ Under 12 Outreach Project for Boys & the SNAP™ Girls Connection

The cornerstone of the clinical programmes at the Child Development Institute that are offered to children with conduct problems is SNAP™ (Stop Now And Plan). This cognitive-behavioural, self-control and problem-solving programme was developed in the late 1970s and trademarked in 1998 by the former Earlscourt Child and Family Centre. Under the SNAP™ umbrella, the Child Development Institute (operating as the former Earlscourt Child and Family Centre) developed two gender-specific, multi-component programmes to respond to children under age 12 in conflict with

the law: the SNAP™ Under 12 Outreach Project (ORP) and the SNAP™ Girls Connection (GC).

Established in 1985, the mandate of the SNAP™ Under 12 Outreach Project (ORP) is to serve boys under age 12 who engage in delinquent acts, but do not legally fall under the purview of Canada's *Youth Criminal Justice Act*. In its twenty years of operation, the ORP has come to be regarded as the most fully developed, longest sustained, empirically based intervention specifically for 'pre-offender' youth under age 12 (Howell, 2003).

The programme consists of five key components:

1. a SNAP™ Children's Club – a structured group that teaches boys impulse control skills through the use of SNAP™;
2. a concurrent SNAP™ Parenting Group that teaches parents effective child management strategies;
3. one-on-one family counselling based on 'Stop Now and Plan Parenting' or SNAPP;
4. individual befriending for boys who are not connected with positive structured activities in their community and require extra support, and
5. academic tutoring to assist boys who are not performing at their age-appropriate grade level at school.

Other components of the programme that are deployed where appropriate include school advocacy and teacher consultation, victim restitution, and a Monday Night Club for high-risk boys who have completed the SNAP™ Children's Group but still require support. In addition, a Leaders-In-Training (LIT) programme is available to boys over 12 who still require support as they enter into their teenage years. Based on an assessment of their unique treatment needs, ORP children and families have access to a range of these components. However, the two core components that are offered to all children and their families are the twelve-week child and parent SNAP™ groups.

The sister programme of the ORP, the SNAP™ Girls Connection (GC), began in 1996 when preliminary assessments of the then co-ed ORP groups revealed that the programme was not producing the same strong, positive outcomes for girls as it was for boys. Over its ten-year history, the GC has established itself as the most advanced gender-specific intervention for girls under age 12 who are in conflict with the law (Pepler, Walsh & Levene, 2004). Like the ORP, two core components of the GC are the SNAP™ Children's Club, and a concurrent SNAP™ Parenting Group. Upon completion of these components, girls over 8 years of age and their mothers may also participate in a third core component: Girls Growing up Healthy (GGUH) – a group for mothers and daughters that focuses on relationship building and includes such topics as physical and sexual health, puberty, female role models and girls in the media, and intimate relationships. Individual befriending, academic tutoring, one-on-one family counselling based on SNAPP and the LIT programme is also made available, as needed.

Both the ORP and the GC were created with reference to the scientific literature on what works with children displaying clinical levels of problem behaviours. The

programmes are fully manualised (Levene, 2003; Earlscourt Child and Family Centre, 2001a; 2001b), with complete logic models, and are in various stages of replication in Canada, the US and several countries in Europe. The target population served by these programmes is children who, according to clinical assessments, engage in above average levels of aggressive, destructive, and/or other disruptive behaviours. All admitted children have problem behaviours that place them in the top 2% of all children of similar age and gender, and/or have had recent contact with the police resulting from their own misbehaviour. Typical referral behaviours include stealing, lying, mischief and vandalism, aggression, assault, bullying and truancy. A significant proportion of these children also experience academic difficulties, which place them at risk of school problem behaviours or early school dropout. Primary referral sources to both programmes include the police, but also include schools, child welfare agencies, parents and other medical professionals.

Since the establishment of these interventions, the ORP and the GC have been subject to ongoing evaluations, in addition to a number of discrete research projects measuring their effectiveness. The following sections present some of the key findings from research studies conducted at Child Development Institute. For more detailed accounts, readers are referred to the original studies cited below.

Research on the SNAP™ Under 12 Outreach Project (ORP)

Hrynkiw-Augimeri, Pepler and Goldberg (1993) first established programme effectiveness by gathering data on ORP children at admission, discharge, and at six- and twelve-month follow-up intervals using the Child Behaviour Checklist (CBCL; Achenbach & Edelbrock, 1983). The study was based on an initial sample of 104 children (88 boys and 16 girls) who were admitted to the ORP between 1985 and 1988. Comparisons between admission and discharge T-scores on internalising problem behaviour, externalising problem behaviour, Social Competence and Total CBCL scales revealed statistically significant improvements, and these treatment gains were maintained over the two follow-up periods. There was a fair degree of attrition from admission to the follow-up assessments. However, analysis of CBCL admission scores comparing study participants to drop-outs revealed no significant differences between the two groups suggesting that the attrition was not selective. Results also indicated that, after being discharged from the ORP, only one in five of the children had further contact with the police. Although encouraging, the overall positive results of this preliminary study could not necessarily be attributed to the programme due to the absence of comparable data for an untreated, contrasting control group.

To overcome this limitation, a more stringent evaluation of the ORP was undertaken using a randomised control trial (see Augimeri, Farrington, Koegl & Day, 2007; Day & Hrynkiw-Augimeri, 1996). Sixteen pairs of children were matched on age, sex and severity of delinquency at admission and then randomly assigned to receive the ORP programme (the immediate treatment group or ITG) or to a group consisting of a non-clinical, recreation programme called the Cool Runners Club (the delayed treatment group, or DTG). At the end of three months,

the groups were counterbalanced so that the DTG received the ORP programme and vice versa. Measures were administered pre-admission, at three months (that is, before the groups switched over), at six months (after both groups received the ORP and Cool Runners Club), at twelve months (first follow-up) and at eighteen months (second follow-up) post-admission.

Overall, the results of the study provided excellent support for the effectiveness of the ORP. Compared to the DTG, the ITG showed significant improvements on child problem behaviours as measured by the CBCL from pre- to post-intervention (that is, after three months). Moreover, these treatment gains were maintained over the duration of the study as nearly 60% of the ITG children who had scored in the clinical range of the Externalising problem behaviour subscale of CBCL pre-intervention scored in the normal range at second follow-up (in comparison, only one-third of the DTG children scored in the normal range at this time). In terms of the Aggression and Delinquency subscales, for those differences that were statistically significant, effect sizes were large, ranging from 0.79 to 1.19. Significant decreases were also observed for the ITG in children's self-reported delinquency, and parenting attitudes, parenting self-efficacy and parental stress.

When the ORP intervention was applied to the DTG children, it was not found to yield comparable positive changes on the self-report and parent-rated measures. It was suspected at that time that families of children in the DTG (who did not immediately receive clinical treatment) became frustrated at their children's lack of improvement and therefore became less willing to engage in treatment when the ORP programme was offered during the second session. Unfortunately, the programme also underwent concurrent staffing changes, which led to the delivery of a less intensive version of the ORP to the DTG. When we assessed treatment intensity through a secondary analysis of the data (Augimeri et al., 2007), we found that DTG children and their families participated in significantly fewer of the SNAP™ Children's and Parenting Groups, individual family counselling, and academic tutoring sessions. Receiving less intensive, delayed treatment, therefore, appeared to produce a 'too little too late' effect, which limited the overall impact of the intervention for the DTG. While undesirable in one sense, this finding helped us to better grasp the importance of providing treatment in a timely fashion, and in an amount sufficient to produce both short-term and sustained changes.

Results from this study encouraged us to continue looking at treatment intensity in relation to the ORP, but we were also curious to understand whether client characteristics such as the age and sex of participating children were important to consider when assessing the program's overall effectiveness (Koegl, Farrington & Augimeri, 2007). Building upon the dataset created during the previous random control trial, we added a further fifty children who had received the ORP between 1986 and 1994. This group was similarly matched on age, sex and severity of delinquency at admission to be comparable to the ITG and DTG. Analysis of other demographic variables (that is, number of presenting problems, prior police contact and family composition) did not revealed differences between the three groups at admission. To examine the long-term effectiveness of the program, we again performed a national search of criminal records for the entire sample up to each

child's eighteenth birthday to see whether there were differences between the three groups in terms of their official involvement in crime.

For this analysis, only pre-to-post changes on CBCL derived measures of Delinquency (based on ten items), Major Aggression (ten items) and Minor Aggression (nine items) were assessed (see Koegl et al., 2007). Accordingly, the DTG functioned as a pure control group (in that they did not receive the ORP between the two measurement intervals) against which two other treated groups could be compared. In examining pre-to-post changes, we found strong evidence in support of the effectiveness of the ORP. Specifically, the matched group showed significant decreases on all outcome measures, while the ITG decreased significantly in terms of Delinquency and Major Aggression, but showed a non-significant decrease in terms of Minor Aggression (P=0.10). No treatment gains were observed for the control group.

We also found evidence that the effects of the ORP treatment varied by age, sex and treatment intensity. Older children (aged 10–11) showed slightly larger decreases in delinquent behaviour compared to younger children (aged 6–9). Girls also showed larger decreases in Delinquency subscale of the CBCL compared to boys (who also decreased significantly), but the girls did not exhibit any changes in terms of either measure of Aggression, in contrast to the boys who demonstrated statistically significant improvements. To examine the role of treatment intensity, we correlated change scores for the CBCL outcome measures with the number of sessions received for each of five ORP service components (that is, SNAP™ Children's Groups, SNAP™ Parent Groups, Individual Befriending, Academic Tutoring and Individual Family Counselling Sessions). Results indicated that decreases in Delinquency were significantly related to the number of SNAP™ Children's Group and Family Counselling sessions received (r=0.25 and 0.19, respectively; p<0.05), while reductions in Minor Aggression were associated with greater involvement in SNAP™ Children's Group sessions (r=0.30, p<0.01). We also found that participation in SNAP™ Children's Group sessions was negatively related to long-term involvement in delinquency. Of those children who attended nine or more of these sessions, 36.1% were found guilty of at least one crime by their eighteenth birthday compared to 68.4% of children who attended eight or less sessions. Thus, as the central component of the ORP program, it appears that greater participation in the SNAP™ Children's Group may have played a role in preventing some children from becoming involved in delinquency during adolescence.

The influence of treatment intensity as a moderator of ORP outcomes was further explored in a recent study by Augimeri and colleagues (2006). This analysis was based on a large sample of 379 boys who had gone through the ORP programme during the period 1985–99 and who were eligible for youth court contact at the time of the study (for a description of the sample, see Augimeri, 2005). Outcome variables included T-scores on the Delinquency subscale of the CBCL obtained prior to admission to the ORP, post-treatment (three months following admission) and six months post-treatment, in addition to a dichotomous variable that was coded to indicate the presence or absence of a finding of guilt for one or more offences during the follow-up period. Retrospectively rated EARL-20B scores were also available for the 379 cases, making it possible to explore how risk might be related to treatment

intensity and the two outcome variables. Our plan was to first examine the overall effect of the programme and then compare boys who had received an 'enhanced' version of the ORP (defined as receiving one or more Individual Befriending sessions) to boys who received a 'standard' version of the programme (that is, no Individual Befriending sessions). A growth-mixture model approach was employed to statistically classify boys, based on their CBCL scores, into high-, medium- and low-risk delinquency classes.

Overall, analyses indicated that the ORP was an effective program. Parent-reported levels of delinquency decreased significantly from clinical to non-clinical levels following treatment. Although there were further decreases for all boys at follow-up, the programme appeared to work best for boys with moderate levels of delinquency. The results also show that EARL-20B risk factors significantly predicted initial delinquency levels, suggesting that the tool could be used to make clinical decisions about the type and amount of services offered to children with conduct problems. This investigation also revealed that the enhanced ORP yielded an additional positive treatment effect, which was particularly important for boys with high levels of delinquency. In fact, high-delinquency boys who did not receive an enhanced version of the ORP got slightly, but not significantly, worse following treatment.

The findings from the series of studies summarised above and replication site studies (for example, Lipman, Kenny & Sniderman, 2007) provide strong support for the effectiveness of the SNAP™ Under 12 Outreach Project. In general, we can be confident that the programme lowers aggression and delinquent behaviours in the short term, with good evidence that these effects can be sustained over the intermediate future. There is also some indication that the programme may produce long-term changes, such as preventing delinquency during adolescence and adulthood, although more work is clearly needed to isolate the ORP as the key factor preventing this type of negative outcome.

Research on the SNAP™ Girls Connection (GC)

The first evaluation of the SNAP™ Girls Connection was initiated almost immediately after the programme was established in 1996. Using a qualitative design, sixteen girls and their families who received treatment between 1997 and 1999 participated in the study (Levene, Madsen & Pepler, 2005). The purpose of the research was to better understand the lives of young girls with pronounced disruptive behaviour to ensure that the treatment programme was addressing key clinical issues. A series of semi-structured interviews were completed with the girls and their caregivers, which were then transcribed and coded to uncover prominent themes. Most commonly identified across the sample were six potential risk factors: early childhood difficulties, strained family relationships, abuse, academic and behavioural difficulties at school, peer rejection and negative community experience. Early difficulties, including risk factors such as physical, temperamental and constitutional problems characterised all of the girls participating in the study. Complex family relationships, most often characterised by conflicted mother-daughter interactions and the longing for

relationships with absent fathers also emerged as salient themes. Taken together, the findings from this study helped us to better understand the complexity of issues young girls face as they contend with early childhood adversity, and the importance of attending to strained caregiver-daughter interactions during the clinical process.

A more traditional evaluation of the GC programme was conducted for 98 of the 250 girls who were admitted during the period 1996–2000 – the first four years of the programme's operation (Walsh, Pepler & Levene, 2002). The analysis examined behavioural change comparing admission and six-month (N=72) and twelve-month (N=58) externalising problem behaviour scores using the Standardized Client Information System, a measure based on the CBCL (Offord & Boyle, 1996). At both follow-up periods, girls showed significant improvement in terms of externalising problem behaviours, which is an aggregation of conduct and oppositional behaviours. The girls also displayed an increase in social skills: statistically significant improvements from admission to the six-month follow-up were found, and these improvements were maintained at twelve months. Effect sizes for the change in externalising problem behaviours were in the small to medium range (d=0.42–0.49), whereas improvement in social relations emerged as a large effect (d=0.72).

Using the same retrospective sample, a further exploration of the effectiveness of the GC was subsequently completed by examining the effect of the programme on a wider range of problem behaviours (Pepler, Walsh & Levene, 2004). In this analysis, significant improvements over the two follow-up periods were found on parent ratings of the girls' anger regulation, including angry and resentful behaviours, temper tantrums, and cranky dispositions. There were also significant decreases in aggressive behaviours such as cruelty, bullying and the frequency of physical attacks on others. The frequency of defiant attitudes and behaviours (for example, talking back) over the six-month interval also significantly decreased. Stealing outside the home was the only behaviour in the delinquency and vandalism category which improved from admission to follow-up, although it is worth noting that the baseline prevalence of delinquent behaviour was very low. Girls' prosocial skills, encompassing their relations with both peers and adults, also improved. There were significant improvements over both time intervals in ratings of girls' abilities to wait their turn, avoid fights and get along with friends. Girls also showed improvements in getting along with teachers from admission to six months, getting along with parents from admission to twelve months, and in getting along with family members at both follow-up intervals.

The most recent evaluation of the SNAP™ Girls Connection was a prospective study of girls referred to the programme between 2002 and 2004 (Pepler et al., 2007). A quasi-experimental design was used to randomly assign referred girls either to immediate treatment in the programme (N=44), or to a wait-list control group (N=37). Both groups were stratified in terms of the severity of girls' problem behaviours at intake. Externalising problem behaviours were assessed at admission, post-treatment, and at six-, twelve- and eighteen-month follow-up intervals using the Child Behaviour Checklist (CBCL; Achenbach & Rescorla, 2001). Prior to the analyses, we tested age, cognitive ability and academic performance, and found that they were not significantly related to problem behaviours prior to or following the treatment phase. Therefore, these variables were dropped as covariates for future

analyses. Mixed model analysis was used to assess change in behaviours after treatment and differences between treatment and control groups.

Results indicated a significant treatment effect of the program. In comparing the immediate treatment group to the control group, problem behaviours (for example, aggression, rule breaking, conduct disorder, oppositional defiant disorder and social problems) decreased significantly more after girls received the GC intervention. There was also a significant decrease in parental reports of girls' externalising problem behaviours from pre- to post-programme (d=0.37), and significantly more of the immediate treatment girls (38%) moved into the non-clinical range on externalising problem behaviours post-treatment compared to controls (10%). We also found that the girls in the immediate treatment group significantly improved in terms of their self-control and cooperation skills. Based on both parent- and child-reported measures, there was also evidence of improved parenting practices and relationship quality in families receiving immediate treatment.

The evaluation period of this study has since been extended in order to obtain additional follow-up information about the girls' behaviour and functioning at home, school and the community. Preliminary analysis of these data suggests stable, sustained treatment effects attributable to the GC. In the future, we hope to learn more about girls' relationships with friends, families and dating partners during adolescence.

In summary, these findings provide an important step forward in our understanding of how to respond clinically to young girls with disruptive behaviours. Moreover, these data are among the first to demonstrate the effectiveness of a gender-sensitive treatment for young girls' aggression and relationship problems that place them in conflict with the law.

Community Implementation of the SNAP™ ORP and GC Programme Models

Since the development of the ORP and GC in 1985 and 1996 respectively, these programmes have been replicated within various organisations across North America and Europe. As is the case with any programme, successful replication requires strong commitment by the target organisation to ensure fidelity and sustainability of the programme over the long term. Although not exhaustive, the following is a list of recommendations that address implementation issues encountered over the years as we have worked with organisations to replicate these two models. Specifically:

1. *Replication sites must enter into a formal licensing agreement* – to maximise integrity and fidelity and ensure that the model is being implemented and represented as intended. Furthermore, the license creates a mechanism through which programme updates and related materials can be communicated and transferred.
2. *The organisation's treatment philosophy should be consistent with that of the host organisation* – in order to minimise retraining of staff and facilitate a

faster implementation of the model.

3. *The replication site must have a strong track record of collaboration with other social service and relevant stakeholders* (for example, child welfare, police, and schools) – given that these children and their families have complex and diverse needs that require access to a wide range of community resources.
4. *Agencies should allocate full-time staff to operate programmes* – otherwise we have found that it is difficult to impossible to sustain a model with high fidelity over time.
5. *Ongoing training and consultation should be built into the implementation plan* – so that staff are thoroughly trained in the model, and are using programme manuals correctly. Ongoing follow-up consultation is recommended in order to address implementation issues, or to take into account unforeseen clinical realities that may be specific to an organisation's community (for example, cultural diversity).
6. *Research must be an integral part of the replication* – in order to assess treatment effectiveness – especially in those cases where there have been local modifications to the model.

Other than initial costs associated with intensive staff training, neither of these programmes require specialised physical space or equipment and can be implemented in most clinical, school, or community settings. In terms of operating the programme, the average cost-per-case varies depending on the number, intensity and duration of service components received, although all children and their parents receive SNAP™ Child and Parent Groups components. For example, a low-risk child would normally cost around $1,000 (CAD) and would not typically access additional ORP/GC service components over their three-month tenure in the program. A moderate-risk case, enrolled in the programme for approximately six months, would cost roughly $2,500 (CAD) but would also receive family counselling, individual befriending, school advocacy and the benefits of participating in a homework club. A high-risk child would cost $4,500 (CAD) on average, and would receive a higher intensity of the components offered to a moderate-risk child, over a longer period of time (that is, over one year), in addition to continued care groups (offered to the child and their parents) and specialised psychiatric assessment and consultation where indicated.

The typical programme cycle for either one of these programmes is twelve weeks, during which time children and their parents are enrolled in concurrent SNAP™ Child and Parent Groups. Additional components may be offered over this interval, but usually begin once families have completed the initial groups. The maximum number of children allowed in each group is seven, and there are usually three groups offered during the course of a week (children are placed into groups based on their age and developmental needs). Accordingly, the programme serves approximately twenty-one families per programme cycle, assuming a staffing constellation that includes a programme manager/coordinator, one full-time family worker, a full-time child worker/group leader, a full-time researcher and one part-time child group leader. Up to three programme cycles can be offered per year, depending on the

intensity of additional components offered, the number of families continuing in service post-SNAP™ Groups, and the volume of referrals.

Summary and Conclusions

We presented a three-component approach and protocol in response to children under age 12 in conflict with the law. We described these components – referral, assessment and gender-specific programmes – and their supporting research, which continues to grow and evolve. The importance of establishing reliable, straightforward referral mechanisms cannot be overstated. Navigating disruptive children and their families to the doors of appropriate service providers in the shortest possible time is a crucial step that has been historically overlooked with this particular population of young people. It is hoped that through police-community protocols the delay in connecting children to evidence-based services can be minimised. It has become increasingly clear that once each child and family is through our doors, staff has to gain a good understanding of their unique histories before effective clinical work can unfold. The Early Assessment Risk Lists are intended to assist clinicians with the task in a scientifically valid way. Once reliably assessed, we must ensure that children receive empirically sound treatment interventions that address their identified risks and needs. The two model programmes described in this appendix – the SNAP™. Girls Connection and the SNAP™ Under 12 Outreach Project - have been shown through stringent, ongoing evaluations to reduce disruptive and delinquent behaviours and increase prosocial skills in children under age 12.

As the field increasingly moves toward a more systematic adoption of evidence-based crime prevention approaches, we can no longer say that 'nothing works' except the status quo of haphazard responses to at-risk children and their families. It should be clear from this chapter that there are effective treatment options available for this important but often forgotten group of children within our communities and formal systems of care.

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