

Collaborative Problem-Solving Approach in Clinically-Referred Children: a Residential Program
Evaluation

A Final Report Submitted to the
Centre of Excellence in Children's Mental Health,
Children's Hospital of Eastern Ontario
EIG #901

Shannon L. Stewart, Ph.D., C. Psych.
Julia Rick, B.A.C.S, B.A.
Melissa Currie, M.Sc.
Niki Rielly, Ph.D., C. Psych.

Department of Applied Research and Education

Child and Parent Resource Institute

London, Ontario, CANADA

September 30, 2009

Table of Contents

Executive Summary

| | |
|--|----|
| Introduction..... | 5 |
| Residential Evaluations..... | 6 |
| Deterrents to Residential Long-Term Success..... | 7 |
| Collaborative Problem-Solving..... | 9 |
| The Current Study..... | 11 |
| The CPS Unit..... | 12 |
| The Focus of this Study..... | 14 |
| Predictions..... | 15 |
| Methodology..... | 15 |
| Participants..... | 15 |
| Measures..... | 16 |
| Procedure..... | 20 |
| Results..... | 22 |
| Discussion of Results..... | 25 |
| Limitations..... | 30 |
| Discussion and Lessons Learned..... | 30 |
| Conclusions and Recommendations..... | 32 |
| Knowledge Exchange Plan..... | 32 |
| References..... | 34 |
| Appendices..... | 39 |
| Tables..... | 44 |
| Figures..... | 51 |

Executive Summary

Residential placement for children and youth is an increasingly prevalent intervention method for the most emotionally disturbed children (Conner et al., 2004). Advocates in favour of promoting a less restrictive treatment philosophy have encouraged community-based treatment supplementary to hospitalization. Although residential services are less costly and restrictive than psychiatric hospitalization (Conner et al., 2002), challenges remain with ensuring that appropriate resources are available to meet public needs.

It has been estimated that 15 to 20 percent of children and youth experience mental disorder causing distress and impaired functioning (Waddell, McEwan, Huam & Shepherd, 2002). Thus, it is important to evaluate the most effective treatment strategies in order to utilize scarce resources in the most optimal manner. Residential evaluations indicate that while some treatments have been found effective, others present little promise of long-term success (Hair, 2005).

In efforts to minimize explosive and aggressive behaviour, a new perspective has been adopted. Greene and Ablon (2006) have designed the Collaborative Problem-Solving (CPS) approach under the philosophy that children/youth do well if they can. Although there is evidence to support gains made with the CPS approach, to our knowledge there are no published reports of the effectiveness of this approach on improving child functioning within a clinically-referred inpatient service.

The Child and Parent Resource Institute (CPRI) is a multidisciplinary mental health facility in London, Ontario, Canada, that concentrates on providing specialized mental health services for children and youth aged 0-18 years; a regional provider of treatment services to a large 17-county catchment area. This study examined the outcomes of a residential unit strongly influenced by the CPS philosophy.

In December 2006, CPRI opened a new residential treatment program on a 9-bed residential unit. This program is a tertiary level assessment and treatment initiative that

operates under the influence of the Collaborative Problem-Solving approach as described by Dr. Ross Greene (Greene & Ablon, 2005). Based on a quasi-experimental design, pre- and post-treatment data was collected on 49 male clients between the ages of 9 to 13 years. The average length of stay on the CPS Unit was approximately 3 months.

It was predicted that positive gains would be reflected by: 1) a reduced number of outbursts otherwise known as meltdowns, 2) improved standardized scores with respect to social skills, 3) enhanced community participation, and 4) improved academic performance. Two further program goals were to: a) achieve a greater understanding of the child's clinical needs, and b) increase the family's awareness of the child's triggers and coping plans.

Repeated Measures ANOVAs and Pearson correlations were used to assess improvements over time. Findings indicated that, between pre- and post-treatment, children/youth reduced the number of outbursts, improved social skills, enhanced community participation, identified areas of clinical needs, and increased family awareness of their triggers. Further longitudinal evaluations would be worthwhile to follow these children into late adolescence.

Future residential evaluations utilizing the CPS approach might include studies with girls in order to assess differences in areas of strength and weakness. Also, as suggested by Greene, Ablon and Martin (2006), implementing the CPS approach within residential settings could have its effects on direct staff members. Therefore, a future direction might be to measure how the implementation of the CPS approach could affect job satisfaction, staff communication, and/or employee turnover rates. Ultimately, this becomes important when considering an agency's investment in maintaining strong resources.

Introduction

In the 1970s and 1980s, treatment philosophies were initiated to deinstitutionalize patients toward less restrictive therapeutic settings (Frensch & Cameron, 2002). Where inpatients were once hospitalized for their treatment, they are now accommodated within alternative services such as residential centres (Blanz & Schmidt, 2000). Advocates in favour of promoting this “least restrictive treatment environment” philosophy have encouraged community-based treatment for children and youth. However, with the promotion of such facilities, a supply and demand issue arises when shifting our resources from psychiatric inpatient care to residential treatment placements for those children and youth with complex needs (Connor, Miller, Cunningham & Melloni, 2002).

Due to its intermediary role between psychiatric hospitals and less intensive placement settings (Libby, Coehn, Price & Orton, 2005), residential placement for children and youth is an increasingly prevalent intervention method for the most emotionally disturbed children (Conner et al., 2004). Although residential services are less costly and restrictive than psychiatric hospitalization (Conner et al., 2002), challenges remain with ensuring that appropriate resources are available to meet public needs.

It has been estimated that 15 to 20 percent of children and youth experience mental disorder causing distress and impaired functioning (Waddell, McEwan, Huam & Shepherd, 2002). Given that mental disorder can severely affect a child’s development, wellbeing, and support network (Waddell et al., 2002), it is important to evaluate the most effective treatment strategies in order to utilize what scarce resources we have in the most optimal manner. Also, considering that children in residential treatment are most often referred following less intensive methods (Frensch & Cameron, 2002), it is crucial that research is devoted to minimizing further unsuccessful therapeutic expenditures. Residential evaluations indicate that while some treatments have been found effective, others present little promise of long-term success (Hair, 2005).

Residential Evaluations

Examining the effectiveness of residential treatment has been challenging because there has been a lack of consensus among researchers as to what constitutes residential treatment. The term “residential treatment” has been applied to group home settings for as few as eight to 10 children, or for residential treatment centres of 100 or more youth (Frensch & Cameron, 2002). That said, there is agreement among researchers that the essential feature of residential treatment is that it requires children and youth to reside away from the home, in a non-family setting (Frensch & Cameron, 2002).

For the purposes of the present study, the Libby et al. (2005) definition of residential treatment has been adopted. According to Libby et al. (2005), a residential treatment centre is a 24-hour facility, not licensed as a hospital, that offers mental health treatment programs for mentally disturbed children. Studies examining treatment effectiveness for residential treatment centres outnumber studies of residential treatment in the smaller group home settings (Frensch & Cameron, 2002).

Many researchers suggest that at time of discharge, residential treatment appears to be effective (Hair, 2005). However, as time away from treatment centres increases and outcomes are measured at longer periods following post-discharge, treatment effects appear to decline (Frensch & Cameron, 2002; St. Pierre, Leschied, Stewart & Cullion, 2008). Although research has explored variables associated with maintaining treatment effects following intervention (i.e., stability of the home the child is returned to, treatment approaches, and availability of aftercare support), the efficacy of various philosophies within residential treatment on the effectiveness of outcome at discharge and follow-up has been largely unexplored (e.g., Dalton, Muller & Forman, 1989; Lyons, Woltman, Martinovich & Hancock, 2009).

Hooper, Murphy, Devaney, and Hultman (2000) note that in order to understand the effects of treatment programs on the lives of individuals and the greater community, tracking treatment outcomes following residential care is essential. To assure resource accountability,

resources should be aligned to support empirically validated interventions (Waddell et al., 2002). Hooper et al. state that, “outcome findings can have a significant impact on how programs are administered with respect to specific needs of treatment, and the program’s fiscal health and resources and even its ongoing existence” (p. 491). Furthermore, outcome monitoring is recommended by many authors, as a necessary component to establishing effective child and youth mental health services (Waddell et al., 2002).

Deterrents to Residential Success: Long-Term

Residential settings require children to reside away from their homes in treatment centres that provide mental health services (Frensch & Cameron, 2002). Since clients who access residential services have often found little success within previous non-residential avenues (Wells, 1991), the population utilizing residential resources is increasingly comprised of troubled youth (Yelton, 1993). To illustrate the severity of such challenges, Wells (1991) reported that residential treatment centres are increasingly more likely to be providing to children suffering from complex, largely psychogenic, severe, and persistent problems that seriously impede normal development.

Overall, research has shown that the majority of children treated in residential treatment programs have improved after treatment (Wells, 1991), but that the long-term effects are diluted, and less encouraging over time (Frensch & Cameron, 2002). It is sometimes the case that mental health resources are so scarce that appropriate after-care support is not available. Therefore, clients who have been doing well under the support of their clinicians are not always as prosperous once discharged to the devices of their own environment. Given the increasing referral rate to residential treatment centres (Conner et al., 2002), and the increasing complexity of needs requiring care, the need to maximize the utility of residential treatment to effectively meet the needs of children, families, and communities has never been greater.

The long-term success of residential treatment is largely dependent on the stability of the home environment upon discharge (Hair, 2005). Given that interactions within a family

household are reciprocal by nature, a child/youth who makes progress during residential stay may not have the ability to maintain gains when re-exposed to a household that harbours detrimental influences that might counter months of treatment. Aggressive child/youth behaviour is often heightened in response to parental habits that are absent during the treatment phase of intervention. Therefore, while children/youth might appear as though they are making large gains in treatment, they may regress to their initial state of problems if no change is made on the parents' part.

Another deterrent to long-term success involves the treatment approaches themselves. For example, since the beginning of residential services, treatments have included intrusive procedures such as seclusion, quiet rooms, and even restraints (Greene, Ablon & Martin, 2006). It was thought that these procedures would help clients learn to cope via "reward and punishment" strategies. However, more and more concerns have risen regarding the notion that these procedures are serving to not only heighten aggressive child behaviour (Murray & Sefchik, 1992), but also can be very dangerous for clients (Finke, 2001; Mohr, Mahon & Noone, 1998; Greene, Ablon & Martin, 2006) and staff involved (Greene, Ablon & Martin, 2006).

To minimize such secluding and restraining treatment philosophies, other recent treatment innovations have surfaced. As a result, a new perspective has been adopted: perhaps it is the actual lifelong approach to these problems that govern positive long-term outcomes. For example, with respect to child conduct disorders, where explosive behaviour may have previously been considered a ploy for children/youth to get what they want, it is now approached as more of a by-product of underdeveloped cognitive skills (i.e., flexibility, frustration tolerance, and problem-solving; Greene, 1998; Greene and Ablon, 2006). Greene and Ablon (2006) have proposed the philosophy that children/youth do well if they can. More specifically, if children/youth are explosive or noncompliant, there must be something blockading their ability to react in an adaptive manner. The approach adopted in addressing

such cases has been defined as Collaborative Problem-Solving (Greene, 1998; Greene & Ablon, 2006; Greene, Ablon & Martin, 2006;).

Collaborative Problem-Solving (CPS)

The CPS approach is used to facilitate problem-solving between a parent and child experiencing explosive child outbursts in a cognitive-behavioural fashion. Emphasis is placed on transactional or reciprocal processes between parents and children to better understand what causes perpetuating issues and frustrations (Greene, Ablon & Spatzeck-Olsen, 2004). The three goals include: 1) bringing awareness to parents about the triggers that are contributing to outbursts, 2) bringing awareness to parents about the options available for handling issues, and 3) helping adults and children/youth become proficient at solving problems together in order to prevent conflict and aggressive reactions (Greene, Ablon & Martin, 2006).

Greene and Ablon (2006) have proposed that explosive outbursts arise in response to triggers and that these triggers are due to deficits in the development of important cognitive skills (i.e., skills that are needed for the development of flexibility, frustration tolerance, and problem solving). There are five identified pathways in which deficits can lead to explosive or non-compliant child behaviour: 1) executive skills, 2) language processing skills, 3) emotion regulation skills, 4) cognitive flexibility skills, and 5) social skills (Greene & Ablon, 2004; 2006). According to Greene and Ablon, once children/youth's pathways have been revealed, it becomes apparent as to which thinking skills need to be trained.

Initial findings in Greene et al.'s (2004) study of CPS in clinically-referred outpatients show this to be an effective treatment across multiple domains of functioning. In some areas the improvements were superior to a group receiving parent training. Participants included children between the ages of 4 and 12 years who suffered from Oppositional Defiant Disorder. After randomly assigning children to receive 10 to 11 weeks of either a Parent Training (PT) program or the CPS program, treatment groups were compared. A notable difference between the conditions included the number of changes to medication regimes. Those children receiving

the CPS condition underwent more medication changes than those in the PT condition. It was suggested that this was due to the “medication-education module of the CPS approach” (p. 1162).

Greene, Ablon and Martin (2006) reported that, during an inpatient study, CPS was implemented within a child psychiatric unit in Massachusetts. Data was collected to measure rates of injuries to staff and residents, as well as rates of restraint. In a sample of 100 children (74% males), the mean age was 9.14 years, and the average length of stay was 14 days. In the 15 months following CPS training, only 3.3 injuries to staff and patients occurred each month—in comparison to the 10.8 injuries per month during the 9 months prior to training. Similarly only one restraint episode had occurred post-training compared to the 281 episodes during pre-training.

Although there is evidence to support gains made with the CPS approach, to our knowledge there are no published reports of the effectiveness of this approach on improving child functioning within a clinically-referred inpatient service. By teaching strategies of preemptive conflict resolution with parent-child dyads, it may be possible to expose families to new perspectives in which more adaptive interactions can follow. For example, if parents realize that their child is resisting authority due to a cognitive deficit that can be strengthened, they may be more apt to consider that the child is not resisting direction out-right, but rather that there is something deterring the child’s ability to move forward cooperatively. If it is possible to shift parents’ understanding of their child’s difficulties, it is possible that the home environments to which children are being discharged do not derail any progress made in treatment.

Furthermore, by exposing parents to their child/youth’s cognitive deficits, proactive measures can be taken to prevent escalation of explosive behaviour. This means that less reward and punishment tactics may be taken (e.g., seclusion, time-outs, restraints, and so forth), and the child can maintain progress toward achieving cooperative goals in a controlled manner.

Examining child/youth residential treatment outcomes is necessary to evaluate the efficaciousness of treatment services and programs, and to ensure children/youths' needs are being met (Waddell et al., 2002). This new specialized treatment approach is a component within a comprehensive mental health system for children/youth. The vision for this change is to provide a well-integrated, specialized service for the diagnosis and treatment of high needs children and youth in the CPRI catchment areas who have serious and complex socio-emotional, cognitive and behavioural needs. This vision is also consistent with the Ministry's direction and the "Residential Review" priorities. Results have implications for residential care facilities across the Province of Ontario.

The Current Study

The Child and Parent Resource Institute (CPRI) is a multidisciplinary mental health facility in London, Ontario, Canada, that concentrates on providing specialized mental health services for children and youth aged 0-18 years; a regional provider of treatment services to a large 17-county catchment area. This study examined the outcomes of a residential unit strongly influenced by the CPS philosophy. Regular operations are based on research committed to developing effective and efficient treatment services.

Clinicians at CPRI. Several disciplines interact daily with the children/youth in residence. Educational requirements for all direct care counsellors on the units at CPRI include, at minimum, a college diploma in a child and youth worker program or equivalent specialization (2 years post secondary school in an accredited program). All therapists receive frequent updated crisis management training and other areas specific to the program (e.g., anger management, social skills, and so forth). Doctoral level supervision of direct care staff is coupled with access to ongoing professional education regarding evidence-based treatments for children/youth with various mental health needs; for example, CPRI has an in-house library with special sections on evidence-based treatments. A staff psychologist directs programming on the residences, and a staff psychiatrist prescribes all psychotropic medications with daily monitoring protocols. Social

workers are available for family therapy. Staffing levels are mandated—allowing for careful supervision of clients and close monitoring of any client contagion.

Residential Services at CPRI. The mental health residential program at CPRI consists of cottage-like residential treatment units, licensed directly by the Ministry of Children and Youth Services. Treatment at CPRI reflects many of the *best-practice* guidelines that can be tentatively gathered from the residential treatment literature reviewed (Little, Kohm, & Thompson, 2005; Lieberman, 2004). Treatment efforts reflect programs emphasizing multimodal clinical assessment, adaptive skill development, family and guardian involvement, and coordinated discharge planning. Therapy is partially based on a milieu program and onsite treatment classrooms. Small special education classrooms are accessible to all inpatients, which greatly improves access to learning as school suspensions are not utilized for intervention.

Outpatient services are the norm during the immediate pre-admission and post-discharge periods. Post-discharge follow-up may include outreach assistance in the home and classroom, or ongoing therapeutic contact. Multidisciplinary assessment and treatment typically begins with psychiatry, and includes careful titration of psychotropic medications. Active involvement and support of the parent/guardian is considered essential. A majority of children/youth in residence at CPRI return home every weekend; thus, 28% of their stay is spent at home, with child and family home goals in. All participants have an individualized plan of care—formally reviewed each month by the family/guardian, community case manager, and CPRI clinicians.

The CPS Unit

In December 2006, CPRI opened a new residential treatment program on a 9-bed residential unit. This program was a tertiary level assessment and treatment initiative that operated under the influence of the Collaborative Problem-Solving approach as described by Dr. Ross Greene (Greene & Ablon, 2004; 2006). Children were referred through a community

process (single point of access mechanism) that identified their needs as complex and could not be met through locally situated services or less intrusive interventions.

Attempts were made to engage families prior to admission to assess potential barriers to residential treatment. Clients were considered for the milieu CPS therapy when they had difficulty meeting adult expectations. The program offered a multidisciplinary assessment and treatment approach as well as significant family and community partner involvement. The average length of stay on the CPS Unit was approximately 3 months.

The multidisciplinary assessment included a focus on lagging thinking skills and triggers as well as an initial action plan which prioritized the difficulties to be addressed during the residential stay. The treatment team met to review daily observations and information collected from the child and family after a client's first 2 weeks. From these records, the initial plan of care was formulated to prioritize treatment efforts on each client's area of greatest deficit. Treatment programs were, therefore, highly individualized and dynamic in the sense that collaborative plans were created with clients to address problems. Regular evaluations and revisions were made via daily staff communication, weekly multidisciplinary rounds, and monthly conferences with family and community partners. The team incorporated the CPS approach in the clinical formulation of difficulties, daily management of difficulties in the residential and school programs, group programs offered to clients (i.e., skill development groups focused on problem-solving skills and social skills), individual counselling with residential staff, family sessions, and parenting information provided to families. The services offered included comprehensive assessments, specialized assessments, individualized school programming, monitoring of medications, individual therapy, and family assessment/therapy. Outpatient services were provided by CPRI team members for a brief period post-discharge and sometimes included outreach assistance in the home, classroom, or ongoing therapeutic contact.

Remediation using the CPS approach is concentrated on each child's skill deficits as well as educating parents on how to best broach problematic situations moving forward. The goals of this CPS intervention are to reduce client outbursts, pursue adult expectations and teach thinking skills. Residential counsellors use a 3-step process to engage the client in problem-solving: (1) empathy and reassurance, (2) define problem as child's and adult's concerns, (3) invitation to solve the problem (Greene & Ablon, 2004; 2006). Families are intensely involved during the admission process as well as through other specialized assessments (e.g., Speech & Language Therapy, Recreation Therapy, and Occupational Therapy).

Multidisciplinary team members meet with clients as a team to review progress toward goal attainment. When appropriate, opportunities are provided for families to observe staff interacting with their child, to learn new techniques on the unit, and for the participation of community treatment providers in services that are offered. Short-term cognitive-behavioural approaches are utilized to provide psycho-education about diagnoses and to address specific goals such as anger, mood, anxiety, and social skills deficits. Outpatient services are provided by CPRI team members for a brief period post-discharge.

The Focus of this Study

Given that the Province of Ontario is adopting the provision of effective and efficient care and accountability, the present study seeks to identify best-practice and evidence-based approaches to reduce the pain and suffering of children/youth with complex, severe needs. Findings from this evaluation will assist in evidence-based planning within the service delivery change and enhance capacity by providing information with respect to most appropriate allocation of intensive, scarce resources within the system of care. If effective, this change in service delivery will also increase community capacity (i.e., freeing up resources due to an increase in long-term effectiveness and providing quicker access to residential care, as well as decreasing client service costs over time), and assist with wait-list reduction. This evaluation will

be the first of this new program at CPRI, and the results can be used to inform on-going service delivery approaches and future evaluations.

Predictions

The CPS Unit was evaluated through a comparison of measures collected at pre- and post-treatment. It was predicted that by utilizing the CPS approach within residential treatment, positive gains would be apparent over time in the following areas: 1) a reduced number of outbursts otherwise known as meltdowns, 2) improved standardized scores with respect to social skills, 3) enhanced community participation, and 4) improved academic performance. Two further program goals were to: a) achieve a greater understanding of the child's clinical needs, and b) to increase the family's awareness of the child's triggers and coping plans. Improvements to family awareness was assessed by comparing pre- and post-scores on standardized measures focusing on stress in the parent-child relationship; identifying the child's clinical needs were measured by the number of diagnoses, evaluations of symptom severity, and assessment needs made through psychiatric/psychological evaluations provided.

Methodology

This study was based on a quasi-experimental design and involved psychiatric samples with heterogeneous, at-risk complexities; children/youth with mixed disorders and multiple diagnoses were admitted to the residential units. This study was designed to evaluate the CPS approach within residential care as it compares treatment outcome across time.

Participants

Between December 2006 and March 2009, data was collected on 49 clients who were discharged from treatment on the CPS Unit. All participants were male and ranged from 9 to 13 years of age at the time of admission ($M = 11.06$, $SD = 1.18$). Average length of stay on the CPS Unit was approximately 3 months.

Measures

Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 2000). The CAFAS consists of subscales measuring functional impairment in eight domains: School, Home, Community, Behaviour Toward Others, Moods and Emotions, Self-Harm, Substance Abuse, and Thinking. Each is rated in 10-point increments on a scale from zero (no impairment) to 30 (severe impairment), the total score used here is the eight-subscale total, with a range of zero to 240.

Parental Stress Index (PSI; Abidin, 1995). The PSI is a 36 item measure, completed by parents. It contains four subscales: Defensive Responding, Parental Distress, Difficult Child, and Parent-Child Dysfunctional Interaction. The measure has received much empirical study, with over 90 citations reporting concurrent validity with different measures, data for special populations generated, and use as an outcome measure in multiple investigations (Salt et al., 2002; Steele et al., 2006).

Stress Index for Parents of Adolescents (SIPA; Sheras, Abidin & Konold, 1998). The SIPA is a 112-item screening and diagnostic instrument that identifies areas of stress in parent-adolescent interactions and is appropriate for parents of adolescents aged 11 to 19 years. This upward extension of the PSI allows a clinician or researcher to examine the relationship of parenting stress to adolescent characteristics, parent characteristics, the quality of the adolescent-parent interactions, and stressful life circumstances. Four subscales measure adolescent characteristics: Moodiness/Emotional Lability, Social Isolation/Withdrawal, Delinquency/Antisocial, Failure to Achieve or Persevere. Four subscales measure parent characteristics: Life Restrictions, Relationship with Spouse/Partner, Social Alienation, Incompetence/Guilt. The SIPA is highly reliable with internal consistency exceeding .80 for each subscale (the majority of subscales fall within the high .80s - .90s). The alpha coefficients for the three SIPA domains (adolescent, parent, adolescent-parent relationship) and the Index

of Total Parenting Stress exceed .90. The 4-week test-retest reliability coefficients for the subscales range from .74 to .91, suggesting that responses remain stable over a period of time.

Parent-Child Relationship Inventory (PCRI; Gerard, 1994). The PCRI is a unique self-report inventory that measures parenting tasks and how a parent feels about their relationship with their child. Designed for use with parents of 3- to 15-year old children, the PCRI gives a clear, quantified description of the parent-child relationship as well as identifying specific areas in which problems may occur. The PCRI includes 78 items covering seven distinct scales: Parental Support, Satisfaction with Parenting, Involvement, Communication, Limit Setting, Autonomy, Role Orientations. The PCRI has been shown to exhibit strong internal consistency (.70 – .82) and test-retest reliability (.81) (Gerard, 1994).

Conners' Parent Rating Scale—Revised (CPRS; Conners, 1997). The CPRS has been widely used in children's mental health clinical and research endeavours over the past 30 years (Gianarris & Goldenand, 2001). A Canadian and U.S. based normative sample allows parent and teacher ratings to reliably depict their view of a child's behaviour across settings. The CPRS subscales include: Oppositional, Cognitive Problems/Inattention, Hyperactivity; Anxious/Shy; Emotional Lability; Conner's Global Index Total; DSM-IV: Inattentive; DSM-IV: Hyperactive-Impulsive; and DSM-IV: Total.

Conners' Teacher Rating Scale—Revised: Long (CTRS; Conners, 1997). Similar to the CPRS, the CTRS sample is community-based and collected throughout Canada and the United States. Normative data is available for children/youth between the ages of 3 to 17 years. Subscales include: Oppositional, Cognitive Problems, Hyperactivity-Impulsive, Anxious-Shy, Social Problems, Psychosomatic, DSM-IV Symptoms, ADHD Index, and Conners' Global Index.

Conners' Global Index—Parent (CGI; Conners, 1997). The CGI is part of the Conners' Rating System –Revised (CRS-R) and contains 10 items that measure behaviour and severity of problem. It is noted to be ideal for examining change over time (Buitellar, Van der Gaag, Swaab-Barneveld & Kuiper, 1995). The CRS-R has been found to exhibit good validity and

internal reliability. The reliability coefficient for the CGI is .88 (Conners, 1997). For this evaluation, the CGI was completed by parents/guardians, staff, and teachers bi-weekly during the child/youth's stay until discharge.

Child Behaviour Checklist (CBCL; Achenbach, 1992). The CBCL is a widely used checklist for the assessment of children's behavioural and emotional problems. The CBCL yields Internalizing and Externalizing scale scores, as well as a Total score. Parents/caregivers are asked to respond to each item as "not true", "sometimes true", or "very true", as it pertains to the child during the past 2 months. The CBCL is reported to have good psychometric properties and has been identified as the "Gold Standard" in the assessment of children/youth with behaviour and socio-emotional problems (Achenbach & Rescorla, 2000).

Teacher Report Form (TRF; Achenbach, 2001). The TRF is designed to obtain teachers' reports of children's academic performance, adaptive functioning, and behavioural/emotional problems. Teachers rate the child's academic performance in each subject on a 5-point scale ranging from one (far below grade level) to five (far above grade level). Space is also provided for reporting available cognitive and achievement test scores for the child. For adaptive functioning, teachers use a 7-point scale to compare the child to typical pupils for how hard he or she is working, how appropriately he or she is behaving, how much he or she is learning, and how happy he or she is. The TRF also has 118 problem items of which 93 have counterparts on the CBCL/6-18. The remaining items concern school behaviours that parents would not observe, such as difficulty following directions, disturbs other pupils, and disrupts class discipline. Teachers rate the child for how true each item is, relative to the past 2 months, using the same 3-point response scale as for the CBCL/6-18. The instrument has high test-retest reliability (.80 - .90), internal consistency (.90), and its content and construct validity have been supported (Achenbach et al., 2001).

Social Skills Rating Scale—Parent (SSRS-P; Gresham & Elliot, 1990). The SSRS-P evaluates problem behaviours (externalizing and internalizing) and social skill difficulties

(cooperation, empathy, assertion, self-control, and responsibility). Various reliability scores reported in the manual indicate adequate stability and concurrent validity has been established with several measures, including the Child Behaviour Checklist (see manual, and Benes, 1997). The SSRS-P has been shown to exhibit strong reliability; the reliability coefficient across all forms and levels for social skills is .90 and problem behaviours is .84 (Gresham & Elliot, 1990). Test-retest reliability has also been found: social skills (.85) and problem behaviours (.84) (Gresham & Elliot, 1990).

Social Skills Rating Scale—Teacher (SSRS-T; Gresham & Elliot, 1990). The SSRS-T assesses problem behaviours in the classroom including externalizing problems (e.g., gets angry easily, fights with others, and so forth) and internalizing problems (e.g., appears lonely, sad, or depressed). Social skills assessed by the teacher include: Cooperation (e.g., finishes class assignments within time limits, keeps desk clean without being reminded), Assertion (e.g., initiates conversations with peers, makes friends easily), and Self-Control (e.g., controls temper in conflict situations with peers, responds appropriately when pushed or hit by others). The SSRS-T also assesses academic competence which asks for a rating of students' mathematics and reading performance, motivation, parental support, and general cognitive functioning on a 5-point scale that corresponds to percentage clusters of students in the class (1 = lowest 10%, 5 = highest 10%). It is known to have good reliability and validity (Gresham & Elliot, 1990).

Brief Child and Family Phone Interview (BCFPI; Cunningham, Pettingill & Boyle, 2004). The BCFPI provides a measure of the type and severity of children's problems. The BCFPI is a standardized interview consisting of 81 forced-choice questions. It is the mandated intake measure used by all Children's Mental Health Centres in the Province of Ontario. This tool consists of five broadband subscales measuring the following areas: Externalizing, Internalizing, Total of six Mental Health Domains, Global Functioning, and Global Family Situation. The subscales are measured using normative *t*-scores found in previous work by the developers (Cunningham et al., 2004). Internal consistency scores indicate adequate reliability, especially

given that the brief screening consists of few items per factor. The content validity of this measure is reported to be based on the mapping of items to the Diagnostic and Statistical Manual of Mental Health Disorders criteria. The BCFPI manual reports research into the criterion validity of this measure focusing on relationships between subscales.

Casebook Review. Based on the data retrieval system used in a previous study (St. Pierre, Leschied, Stewart & Cullion, 2008), vital information was collected from clients' casebooks. Two research assistants were trained to extract at-risk indicators such as: medication usage, diagnoses, treatment plans, interventions, previous services, as well as academic issues (i.e., previous testing and services, modifications to curriculum, specialized accommodations, and Individualized Educational Plans). Based on 20 percent of all casebooks coded, the overall percentage agreement between researchers was 82%.

Discharge Location Form. The Discharge Location Form includes two questions completed by the client's primary counsellor, in collaboration with the case manager. First, the location to which the client was discharged is identified (e.g., home with parents(s), group home, foster home, and so forth). Second, the primary counsellor and case manager are asked to identify their clinical judgement as to whether this placement will likely be successful using a 7-point Likert scale ranging from "not at all successful" to "very successful".

Some measures were collected at discharge, while others were only collected at 6-month follow-up (see Table 1 for distinctions). Analyses were run separately to maximize sample size as some families failed to complete follow-up data or had not been discharged for a period of 6 months by the end of this study.

Procedure

Pre-Admission (Time 1). Once a pre-admission and/or admission date was confirmed, a pre-admission package was mailed to the client's guardian. This package included Time 1 questionnaires (see Appendix A) as well as a letter of information (see Appendix B and C) and consent form (see Appendix D). At this time, an Education Liaison sent a package of

questionnaires that included the TRF, SSRS-T, and CTRS—Long Form to the client's school with a letter of information and consent for educational disclosure. A BCFPI was also completed with the guardian.

A CAFAS was completed at the start of active treatment or at the time of the Individualized Service Plan (ISP). Collection of CAFAS was continued every 3 months thereafter until the last clinician was finished treatment (at which time an exit CAFAS was done). A 6-month follow-up CAFAS was also completed. As CAFAS dates did not typically line up with data collection time points for this evaluation, the CAFAS data was used if it was within 2 months prior to, or 7 days after Time 1, and within 30 days prior to, or 7 days after all other respective time periods. Once the pre-admission data was received, it was scored, entered into the evaluation-specific data set, and filed in a client-specific binder that went to the residential unit that contained Time 2 measures.

Pre-Admission Follow-Up (Time 2). Identical to the pre-admission package, a pre-admission follow-up package was administered only in the event that a waiting period of 6 months or greater existed between pre-admission and admission time points. This process was necessary to ensure that all data collected were recent; in the event that this duration expired, all new measures were sent to parents for updated information. However, if the BCFPI was previously collected within 8 months of the scheduled admission date, new BCFPI data was not collected.

Admission (Time 3). While in residence, parents/guardians, staff, and teachers completed a CGI every 2 weeks, starting on the first Friday at least 10 days after admission. At approximately 4 weeks, parents/guardians and staff of children/youth completed an SSRS (see Appendix A).

Discharge (Time 4). Surrounding a client's discharge day, guardians and teachers were asked to complete a discharge package (see Appendix A). Guardians were notified in advance that this task was required to be completed before they left the unit on discharge day and that if

they could not complete these forms, other strategies were used to acquire the data (e.g., mailing forms to the guardian, having a Community Behaviour Consultant visit the guardian to assist in package completion, and so forth). The coordination of data collection at discharge was carried out by staff on the unit, in collaboration with a research assistant. Once the discharge information was received, it was entered into the evaluation-specific data set and filed into a locked cabinet.

6-Month Follow-up (Time 5). Approximately 2 weeks prior to a client's 6-month discharge anniversary, a follow-up package (see Appendix A) was mailed to their guardian. This package included the same questionnaires completed at Time 1 as well as: a letter of information and consent for educational disclosure, a stamped/addressed return envelope, and a school contact information request form. If a client's status was listed as "closed" in the Client Information System (i.e., no longer active), the school contact information form included an opt-out box for guardians to check if they no longer wished to have school data collected about their child. If no data was returned by the guardian within 2 weeks, a follow-up call was made. At this point, a follow-up package was sent to the clients' school (if school contact information was available and consent for educational disclosure was on file). In the event that completed questionnaires were not received, two more follow-up calls were made to guardians at 1-week intervals. A new BCFPI was also completed and any data received was entered into the evaluation-specific data set and locked into cabinets.

Results

Using SPSS 17.0, a series of Repeated Measures Analysis of Variance (ANOVA) were conducted to determine treatment effectiveness according to progress made on Outbursts, Social Skills, Community Participation, Academic Performance, and Family Awareness. The within-subjects variable was *Time* and consisted of data collected pre- and post-treatment. Separate ANOVAs were run for the various measures and subscales (see Table 3 and 4 for all results). Since sample sizes varied across time points, only those measures that were

supported by 10 or more clients were assessed due to issues related to power. Given the exploratory nature of the study, small sample sizes for each test and apriori hypotheses, a Bonferroni adjustment was not employed to interpret results for fear of committing a Type II error.

For the assessment of Child's Needs, Pearson Correlations were conducted on pre- and post-treatment relationships between variables extracted from Casebook reviews and outcomes on the six BCFPI subscales assessed (see Table 2 for a breakdown of Casebook variables and BCFPI subscales).

Outbursts/Meltdowns

Standard scores from the CPRS were compared on the CGI: Total subscale at pre-admission, discharge, and 6-month follow-up. Results indicated that parental reports reflected a significant decrease, $F(1, 35) = 8.701, p < .01$, in their child's problematic behaviour between pre-admission and discharge (see Table 1 for means and standard deviations). Significant decreases were also found at 6-month follow-up, $F(1,35) = 18.935, p = .001$. These effects indicate that while reductions to outbursts were prevalent at discharge, further improvements continued to be made as time lapsed (see Figures 1 and 2).

Social Skills

Three subscales were compared to measure Social Skills: 1) SSRS-P Social, 2) CPRS Social Problems, and 3) CAFAS Behaviour Towards Others. Significant increases on the SSRS-P were reflected at discharge, $F(1, 37) = 7.551, p < .01$, and at 6-month follow-up, $F(1, 11) = 8.499, p < .05$. Results indicate that clients were perceived to have improved socially at discharge. This pattern appeared to decline by follow-up, which suggests that perhaps the skills measured by this subscale require further reinforcement so as not to lose therapeutic gains.

Significant decreases were found at discharge for CAFAS, $F(1, 41) = 14.548, p < .001$, and at 6-month follow-up for both the CPRS, $F(1, 11) = 9.531, p < .05$, and CAFAS, $F(1, 15) = 6.361, p < .05$. Such improvements suggest that clients continued to improve their social

problems after residential treatment and began to remedy maladaptive behaviours towards others in as little as 3 months of therapy (see Figures 1 and 2).

Community Participation

Community Participation was comprised of two subscales: CAFAS Community, and CBCL Activities. Scores on the CAFAS had significantly decreased, $F(1,41) = 17.476, p < .001$, at the time of discharge, which indicates that community improvements had been made during treatment (see Figure 1). Unfortunately, no other significant results were found. Due to its insufficient n size, tests on the CBCL could not be run.

Academic Performance

The TRF Academic Performance, CTRS Cognitive Problems/Inattention, and SSRS-T Academic Competence subscales were measured to gain perspective on changes in academic performance post-treatment. However, no significant results presented. Due to its insufficient n size, tests on the TRF could not be run.

Family Awareness

To assess Family Awareness, subscales were compared (see Table 4 for a complete listing and breakdown). At discharge, significant increases had been reported on: PCRI Parental Support, $F(1, 30) = 25.269, p < .001$; PCRI Communication, $F(1, 31) = 5.220, p < .05$; and PCRI Limit Setting, $F(1, 31) = 4.212, p < .05$ (see Figure 1). It is important to realize these improvements in the parent-child relationship as the success of a CPS approach resides in understanding and collaborative efforts. If parental support were lacking in the process, it may negatively impact a child's progress all-around. Similarly, with more communication and support, limit setting may have been more accepted by the resident since the child/youth could better understand why it was necessary.

More notably, by 6-month follow-up, significant decreases were reported on: BCFPI Externalizing, $F(1,16) = 26.939, p < .001$; BCFPI 6 Mood & 3 Harm Indicators, $F(1,16) = 16.611, p = .001$; BCFPI Internalizing, $F(1,16) = 9.726, p < .01$; BCFPI Total 6 Mental Health Domains,

$F(1,16) = 20.455, p < .001$; BCFPI Global Functioning, $F(1,16) = 38.471, p < .001$; and BCFPI Global Family Situation, $F(1,16) = 15.963, p = .001$ (see Figure 2). This represents considerable improvement on a child/youth's internalizing and externalizing behaviour, mood, mental health, functioning abilities, and family environment; all crucial elements in maintaining gains acquired in treatment. Such results at this time point are promising for families/clients who have not yet been able to find an approach that seems to alleviate their situations.

Child's Needs

Correlations were run on extracted Casebook variables and BCFPI subscales. Table 5 displays the significant relationships found. Diagnoses at Discharge was positively correlated with the Global Functioning and Medications at Discharge. Medications at Admission was positively correlated with Medications at Discharge and Discharge Placement. Medication at Admission was negatively correlated with Internalizing—reflecting that as the number of medications increase, internalizing behaviours decrease. No significant effect was found between the number of diagnoses and success of placement at discharge.

Discussion of Results

The current study evaluated the Collaborative Problem-Solving approach within a residential treatment program. Over the course of 3 months, children/youth and their parents were assessed, taught, and coached on the premise of Ross Greene and Stuart Ablon's (2004; 2006) goals to treating explosive child behaviour. Findings indicated that, between pre- and post-treatment, children/youth reduced the number of outbursts, improved social skills, enhanced community participation, and increased family awareness of their triggers.

Outbursts/Meltdowns

Our first prediction was that Outbursts/Meltdowns would be reduced at discharge. While significant reductions were made, it was at 6-month follow-up that prevalent findings arose. Observing this trend across time implies that treatment on the CPS Unit was effective in teaching appropriate coping mechanisms to clients who often find themselves externalizing their

frustrations. Most important is that these skills were carried forward into the discharge placement and fostered over time. It is hard to gauge whether outbursts were reduced as a result of improvement in other areas of child functioning, or if a reduction in outbursts lead to additional improvements as children/youth are likely to maintain more coherency during interactions. For example, if children are able to resist such meltdowns, they are likely better able to manage other life aspects and functioning; finding that their frustrations are less taxing to their available cognitive resources. Likely, it is the reciprocal effect that allows a child/youth more mental space to cope adaptively with otherwise distressing encounters.

Additionally, the process by which parent-child dyads learn the CPS approach could possibly help to ease the children's transition. For example, one of the foremost elements to CPS is that it is collaborative. For parents to understand that their children need more stakes in decisions or encounters, greater levels of understanding and patience are more likely prevalent going into new interactions with their child. Similarly, children dealing with constant frustrations in the face of authority may find solace in knowing that their parents will no longer impose misunderstood demands, but will take to the new approach of listening to their children's concerns. Assuming that children will do well if they can, the understanding that their voice will be heard appears to have a placating effect.

By exposing children to a more collaborative approach, they are learning new approaches and options for dealing with confronting issues. Early intervention with these children serves to instil coping strategies that are within reach of their abilities. Furthermore, to bring in such strategies while children are young can help to create foundations upon which a child can build for years to come. The evidence that outbursts continued to reduce at 6-month follow-up is interesting because it suggests, not only that these foundations are being utilized, but that they are enhanced as the child continues to mature.

Social Skills

Our second prediction was that improvement in social skills would surface at discharge. Results indicated that during a resident's stay, social skills were improved, social problems were reduced, and maladaptive behaviour towards others declined. Hence, skill development was enhanced as a result of treatment. What is still uncertain is whether these gains can be sustained longitudinally as there was no opportunity for follow-up.

Community Participation

It was predicted that community participation would be enhanced by discharge and this was supported by scores on the CAFAS Community measure. Perhaps this is a reflection of the children/youth's ability to function more adaptively while taking leave from a household environment that is not conducive to their current state. At times, relief from ever-pressing family situations can be enough of a mental break for gains to be made. Also, it could be the case that parents are engaging their child during more extensive family outings on weekend home visits; having not seen each other as frequently, families may take advantage of their visits together to entertain more quality time.

Academic Performance

Due to inadequate academic information collected on the TRF, analyses could not be conducted ($n = 1$).

Family Awareness

We predicted that family awareness of a child's triggers would increase by discharge. Considering that significant gains were made across a wide array of parental variables (i.e., support, communication, and limit setting) and child/youth variables (internalizing/externalizing behaviour, mood and harm indicators, mental health, global functioning, and global family situation), it is evident that awareness was successfully realized.

Increases in Parental Support, Communication, and Limit Setting were noted. This could imply that, while the treatment approach is effective in building adaptive relationship elements,

the time a child spends out of a complex situation may provide for enough down time where parents can gather perspective in order to better deal with trying situations. Also, this finding indicates that parents are still actively trying to remedy the immediate situation. Granted, this is likely expected if their involvement indicates any effort to see their child/youth through treatment at the tertiary institute. However, the importance behind it lies in the notion that the sample employed for this study had active participants who proved to dedicate their efforts to making it work.

Furthermore, sometimes when parents are struggling at home to find a solution for their child, they are unable to attend to other anxiety-provoking aspects of life; for example, falling behind in work and relationships, parenting other children in the household, finding time to maintain order of regular tasks like laundry and cleaning. When these other aspects build, causing a parent to fall further and further behind, stress begins to taint the ability to function effectively and a communication breakdown occurs. In this circumstance, it is not unheard of for a parent to bypass important limit setting in order to avoid time consuming explosions. Experiencing more personal time while a child is in a residential program, a parent has the opportunity to tackle other areas that have otherwise been neglected; thus, diminishing contributing stressors that blockade progress with the child in need.

The inability to function in frustrating environments can be excruciating for a child. For example, with heightened frustration levels, Greene and Ablon (2006) suggest that an explosive child will shut down and externalize their feelings in episodes of outburst. With the prevalent outbursts, a child/youth may become distressed as this inevitably affects the homeostasis of their family situation. As it has been suggested, and stated above, an inability to function appropriately can expense a child/youth's mental resources to the point of giving up (i.e., not listening, not respecting limits or requests, not collaborating, and so forth). Perhaps the CPS approach is most notably successful for allowing the parent-child dyad to embrace the forethought necessary to meet such a pathway for mutual respect. Having said that, the

improved results on Internalizing and Externalizing behaviour, Mental Health, Mood and Harm, Global Functioning, and Global Family Situation are intuitive.

Child's Needs

Although no significant correlation was raised between the number of Diagnoses at Discharge and the success of Discharge Placement, there is reason to believe that with a greater sample size this prediction could be justified. For instance (see Figure 3), a pattern of correlations was found to indicate potential for future research endeavours.

While the number of medications at admission and discharge were moderately correlated, it was the number of the medications at admission that correlated with the predicted success of discharge placement. As suggested by Greene et al. (2004), the medication-education module of the CPS approach could be reflective of prescription adjustments during treatment. For example, as parents, clinicians, and children begin to gain awareness of which child behaviours are innate to diagnoses—versus which are merely circumstantial—a more accurate regimen of medications can be utilized. It may be possible that children are being medicated for the purpose of lessening aggressive outbursts. However, with cognitive-behavioural improvements such as those outlined within this study, these outbursts can be treated without medication.

Further support for this may be drawn from our negative correlation between the number of Medications at Admission and Internalizing behaviour. Haapasalo, Tremblay, Boulerice, and Vitaro (2000) suggests that internalizing behaviour acts as a protective factor to physical aggression since internalizing symptoms (e.g., anxiety, depression, and so forth) are not conducive to outward acts; they tend to reflect more withdrawal. Our negative correlation indicates that with a greater number of medications at admission there is less internalized behaviour. Consequently, it may be safe to assume that clients admitting with fewer medications and more internalizing symptoms will have a higher likelihood of a successful

discharge placement since they will be less likely to present with outbursts, problematic social skills, and so forth.

Limitations

Further longitudinal evaluations would be worthwhile to follow these children into late adolescence. Given that specific gains continued to be made at 6 months, an assessment of resiliency and treatment sustainability through these critical years would be beneficial to evidence-based practice. Future residential evaluations utilizing the CPS approach might also include studies with girls in order to assess differences in areas of strength and weakness. Maybe it is the case that different gains are acquired at different rates between sexes.

As suggested by Greene, Ablon and Martin (2006), implementing the CPS approach within residential settings could have its effects on direct staff members. Since staff begin to assume more of an “active participant” role in each resident’s treatment, their interactions are more likely to elicit reciprocal effects on the clients; this, in turn, affects the progress of treatment. Therefore, future direction might be to measure how the implementation of the CPS approach could affect job satisfaction, staff communication, and/or employee turnover rates. Ultimately, this becomes important when considering an agencies investment in maintaining strong resources—indirectly affecting the client’s progress. With fewer changes in a child’s routine, it is possible that greater gains can be made or maintained.

We also plan on linking CPS outcomes to our intrusive measures database. We plan on examining whether this treatment modality resulted in chemical restraints, secure isolations, and physical restraints. Previous research (e.g., Greene et al., 2006) found that CPS had a substantial impact on intrusive measures in residential treatment.

Discussion and Lessons Learned

The primary limitation of the present study is that all data were obtained from a single tertiary agency. This data source limitation is likely to have an impact on the ability to generalize our findings. For example, our results might be less relevant to units that do not treat

children/youth with highly complex, co-morbid mental health problems. Additionally, 6-month follow-up data was only available from a sub-sample as some children/youth had not been discharged for a period of 6 months by the completion of this study. In a related manner, due to the preliminary nature of this study and the small number of participants, we realize a number of analyses were done due to the wealth of data available; thereby, possibly increasing the Type I error rate.

To further complicate the issue, a number of measures that were collected at the time of discharge were not collected at 6-month follow-up. Therefore, we were unable to determine differential treatment sustainability on certain measures. Without long-term follow-up (e.g., 2-5 years), it is unknown as to the longitudinal benefits of residential treatment.

Due to the complex logistics regarding residential treatment, it is often difficult to identify the key factors that facilitate positive change in residential care. The lack of randomized clinical trials and specific controls to ensure treatment integrity has led to inconsistencies in results and recommendations in the past. Given the absence of a control group and the lack of treatment fidelity measurements, we cannot make any definitive conclusions at this point in time. It is only by showing an empirical relation between outcomes and well-described interventions that true insight will be obtained with respect to what makes the difference in residential child/youth care (Harder, Knorth & Zandberg, 2006; Kendrick, 2007).

Lastly, without controlling for clients' previous service utilization, it is difficult to draw comparisons between programs. Since CPRI is a tertiary facility, clients are referred having already been exposed to unsuccessful treatments. It is possible that levels of frustration within the mental health system may be exacerbated; thus, affecting viable treatment outcomes.

With respect to the evaluation process, CPRI staff gained an increased awareness of the Collaborative Problem Solving method, while clinical staff gained enhanced knowledge of the process of program evaluation and subsequently, increased CPRI's research capacity in general. These direct care staff played an integral role in the evaluation process while the

children/youth were in residence at CPRI. In the future, optimal evaluation efforts would allow for longer data collection periods to increase the number of participants.

Conclusion and Recommendations

The main insight we would like to convey to others is the importance of having a consistent program delivery and data collection process in place before an evaluation occurs. A thorough understanding of the need for data collection to be consistent across all participants was instrumental in obtaining our data. Assurance of the consistency of the program delivery process allows for greater confidence in the strength of the results.

A second insight is the importance of a suitable sample size. Unfortunately, we were not able to analyze all aspects of outcomes as planned, because of low sample sizes (e.g., measures used to investigate Academic Performance). Future efforts could use a longer data collection timeline, and consider ways to promote participation of respondents (i.e., structuring data collection only during the school year so that teachers could better contribute).

Due to the residential restructuring at CPRI, data collection for this study was prematurely halted on March 16, 2009. While we did obtain the expected sample size of approximately 50 clients, changes in the intuitional program within the residential delivery system resulted in the inability to collect additional data for the CPS unit. The commitment to program stability for the allotted evaluation period is essential. This required collaborative efforts with clinicians, senior management, and researchers/evaluators. As an organization, CPRI can make use of this data for specific programming decision-making, as well as a model for future program evaluation efforts.

Knowledge Exchange

Dissemination of research findings is a major commitment of the Centre of Excellence, and a core role of CPRI as a regional centre. We are dedicated to sharing results in a number of ways: a) providing periodic updates of the work to all partners including the Ministry of Children and Youth Services, the Centre of Excellence, CPRI staff, and direct presentations to

single-point referral agencies across Southern Ontario; b) presenting information from the findings at forums of both an academic nature and those that are more appropriate for practitioner groups; c) Ensuring that results are shared through the websites such as the Centre of Excellence, the Ontario Association of Children's Mental Health Centres, Healthline.ca, as well as the CPRI intranet; d) Submitting papers for peer review to journals connected to children's mental health issues.

Given that CPRI caters to an effective knowledge exchange infrastructure, research findings will be provided in a manner preferred by, and accessible to, all relevant audiences (e.g., consumers, staff, Managers, Ministry officials, Advisory Committees, Children/Youth Mental Health, and university communities). Communication via newsletters, electronic bulletin boards, and executive summaries, are some of the avenues to be employed.

Information will also be disseminated to families as we continue to track evidence-based impacts. Evaluation of the strengths and weaknesses in our CPS program will be ongoing in order to improve the quality of our services; resulting in positive outcomes for client-focused treatment. In the immediate future, we will be presenting our preliminary findings at the Canadian Academy of Child and Adolescent Psychiatry (CACAP) conference in November, 2009.

References

- Abidin, R. R. (1995). *Parenting Stress Index Short Form*. Lutz, FL: Psychological Assessment Resources, Inc.
- Achenbach, T. (1992). *Child Behavior Checklist for Ages 4-18*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Achenbach, T. (2001). *Teacher's Report Form for Ages 6-18*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Achenbach, T. M. & Rescorla, L. (2000). *Manual for the Child Behavior Checklist 1 ½ -5*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Benes, K. M. (1997). Social Skills Rating System, in the *Twelfth Mental Measurements Yearbook*. Edited by Impara, J.C., Plake, B.S. Lincoln, NE, Buros Institute of Mental Measurements.
- Blanz, B., & Schmitz, H. M. (2000). Practitioner review: preconditions and outcomes of inpatient treatment in child and adolescent psychiatry. *Journal of Child Psychology and Psychiatry*, 41, 703-712.
- Buitellar, J. K., Van der Gaag, R. J., Swaab-Barneveld, H., & Kuiper, M. (1995). Prediction of clinical response to methylphenidate in children with attention-deficit hyperactivity disorder. *Journal of American Academy of Child and Adolescent Psychiatry*, 34, 1025-1032.
- Conners, C. K. (1997) *Conners' Global Index*. North Tonawanda, NY: Multi-Health Systems, Inc.
- Connors, C. K. (1997). *Conner's Rating Scales-Revised User's Manual*. NY: Multi-Health Systems, Inc.
- Connor, D. F., Miller, K. P., Cunningham, J. A., & Melloni, R. R. (2002). What does getting better mean? Child improvement measure of outcome in residential treatment. *American Journal of Social Orthopsychiatry*, 72, 110-117.

- Cunningham, C.E., Pettingill, P., & Boyle, M. (2004). *The Brief Child and Family Phone Interview (BCFPI-3): A Computerized Intake and Outcome Assessment Tool. Interviewer's Manual*. Retrieved Feb. 7, 2005 from <http://www.bcfpi.com/bcfpi/downloads.html>.
- Dalton, R., Muller, B., & Forman, M. C. (1989). The psychiatric hospitalization of children: An overview. *Child Psychiatry and Human Development*, 19, 231-244.
- Finke, L. M. (2001). The use of seclusion is not evidence-based practice. *Journal of Child and Adolescent Psychiatric Nursing*, 14, 186-190.
- Frensch, K. M., & Cameron, G. (2002). Treatment of choice or a last resort? A review of residential mental health placements for children and youth. *Child and Youth Care Forum*, 31(5). 307-339.
- Gerard, A. B. (1994). *Parent-Child Relationship Inventory (PCRI): Manual*. Los Angeles: Western Psychological Services.
- Greene, R. W. (1998). *The explosive child: A new approach for understanding and parenting easily frustrated, "chronically inflexible" children*. New York, NY, US: HarperCollins Publishers. Retrieved from PsycINFO
- Greene, R. W. (Writer/Producer), Ablon, J. S. (Writer/Producer), & Spatzeck-Olsen, H. (Director). (2004). *Parenting the Explosive Child* [Motion picture]. United States: Paraclete Video Productions; a Center for Collaborative Problem Solving Production.
- Greene, R. W., & Ablon, J. S. (2006). *Treating explosive kids: The collaborative problem-solving approach*. New York, NY, US: Guilford Press. Retrieved from PsycINFO
- Greene, R. W., Ablon, J. S., Goring, J. C., Raezer-Blakely, L., Markey, J., Monuteaux, M. C., et al. (2004). Effectiveness of collaborative problem solving in affectively dysregulated

- children with oppositional-defiant disorder: Initial findings. *Journal of Consulting and Clinical Psychology*, 72(6), 1157-1164. doi:10.1037/0022-006X.72.6.1157
- Greene, R. W., Ablon, J. S., & Martin, A. (2006). Use of collaborative problem solving to reduce seclusion and restraint in child and adolescent inpatient units. *Psychiatric Services*, 57(5), 610-612. doi:10.1176/appi.ps.57.5.610
- Gresham, F.M., & Elliott, S.N. (1990). *Social Skills Rating System*. Circle Pines, MN: American Guidance Service.
- Haapasalo, J., Tremblay, R. E., Boulerice, B., & Vitaro, F. (2000). Relative advantages of person- and variable-based approaches for predicting problem behaviors from kindergarten assessments. *Journal of Quantitative Criminology*, 16(2), 145-168. doi:10.1023/A:1007512521780
- Hair, H. J. (2005). Outcomes for children and adolescents after residential treatments: A review of research from 1993-2003. *Journal of Child and Family Studies*, 14, 551-575.
- Harder, A. T., Knorth, E. J., & Zandberg, T. (2006). *Residential child and youth care in the picture*. Amsterdam: SWP Publishers
- Hoagwood, K., & Cunningham, M. (1992). Outcomes of children with emotional disturbance in residential treatment for educational purposes. *Journal of Family and Child Studies*, 1, 129-140.
- Hodges, K. (2000). *Child and Adolescent Functional Assessment Scales, 2nd Revision (CAFAS)*. Ypsilanti, Michigan: Eastern Michigan University.
- Hooper, S. R., Murphy, J., Devaney, A., & Hultman, T. (2000). Ecological outcomes of adolescents in a psychoeducational residential treatment facility. *American Journal of Orthopsychiatry*, 70, 491-500.
- Hussey, D. L., & Guo, S. (2002) Profile characteristics and behavioral change

- trajectories of young residential children. *Journal of Child and Family Studies*, 11, 401-410.
- Kendrick, A. J. (Ed.). (2007). *Residential child care: Prospects and challenges*. Ondon: Jessica Kingsley Publishers.
- Libby, M A., Coehn, A. S., Price, D. A., & Orton, H. D. (2005). Inside the black box: What constitutes a day in a residential treatment center? *International Journal of Social Welfare*, 14, 176-183.
- Lieberman, R.E. (2004). Future directions in residential treatment. *Child and Adolescent Psychiatric Clinics of North America*, 13, 279-294.
- Little, M., Kohm, A., & Thompson, R. (2005). The impact of residential placement on child development: research and policy implications. *International Journal of Social Welfare*, 14, 200-209.
- Lyons, J. S., Woltman, H., Martinovich, Z., & Hancock, B. (2009). An outcomes perspective of the role of residential treatment in the system of care. *Residential Treatment for Children & Youth*, 26(2), 71-91. Retrieved from PsycINFO database.
- Mohr, W. K., Mahon, M. M., & Noone, M. J. (1998). A restraint on restraints: The need to reconsider the use of restrictive interventions. *Archives of Psychiatric Nursing*, 12(2), 95-106. doi:10.1016/S0883-9417(98)80059-9
- Murray, L., & Sefchik, G. (1992). Regulating behaviour management practices in residential treatment facilities. *Children and Youth Services Review*, 14, 519-539.
- Pfeiffer, S. I., & Strzelecki, S. C. (1990). Inpatient psychiatric treatment of children and adolescents: A review of outcome studies. *Journal of the American Academy of Child and Adolescent Psychiatry*, 29, 847-853.
- Salt, J., Shemilt, J., Sellars, V., Boyd, S., Coulson, T., Mc Cool, S. (2002). The Scottish Centre for Autism Preschool Treatment Programme II: The results of a controlled treatment outcome study. *Autism*, 6(1), 33-46

- Shapiro, J. P., Welker, C. J. & Pierce, J. L. (1999). Evaluation of residential treatment for youth with mental health and delinquency-related problems. *Residential Treatment for Children and Youth*, 17, 33-48.
- Sheras, P. L., Abidin, R. R., Konold, T. R. (1998). *Stress Index for Parents of Adolescents: Professional Manual*. Lutz, FL: Psychological Assessment Resources.
- St. Pierre, J., Leschied, A., Stewart, S. L. & Cullion, C. (2008). *Situating the role of residential treatment for high needs, high risk children and youth: Evaluating outcomes and service utilization*. RG 160106-003. The Provincial Centre of Excellence for Child and Youth Mental Health at CHEO, \$147,000.
- Steele, M., Weiss, M., Swanson, J., Wang, J., Prinzo, R. S., & Binder, C. E. (2006). A randomized, controlled, effectiveness trial of oros-methylphenidate compared to usual care with immediate-release methylphenidate in Attention Deficit-Hyperactivity Disorder. *Canadian Journal of Clinical Pharmacology*, 13(1), 50-62.
- Waddell, C., McEwan, K., Huam J., & Shepherd, C. (2002). Child and youth mental health: population health and clinical service considerations. *British Columbia Ministry of Children and Family Development*.
- Wells, K. (1991). Placement of emotionally disturbed children in residential treatment: a review of placement criteria. *American Journal of Orthopsychiatry*, 61, 339-347.
- Whittaker, J., K., & Maluccio, A. N., (2002). Rethinking "child placement": A reflective essay. *Social Service Review*, 76, 108-134.
- Yelton, S. (1993). Children in residential treatment – policies for 90's. *Children and Youth Services Review*, 15, 173-193.

Appendix A

Residential Program Evaluation Measures

| | |
|-----------------------------------|---|
| <p>PRE-ADMISSION (Time 1)</p> | <ol style="list-style-type: none"> 1. Conners' Parent Rating Scale (L) 2. Conners' Teacher Rating Scale (L) 3. SSRS Parent – Grade specific 4. SSRS Teacher – Grade specific 5. CBCL 6. PCRI 7. PSI OR SIPA – Age specific 8. TRF 9. CAFAS 10. BCFPI <div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-top: 20px;"> <p><i>If child's guardian is CAS –PCRI, SIPA/PSI are not sent</i></p> </div> |
| <p>ADMISSION (Time 3)</p> | <ol style="list-style-type: none"> 1. 10 CGI Parent/ Staff/Teacher 2. SSRS Parent – Grade specific 3. SSRS Parent (for Staff) – Grade specific 4. SSRS Teacher – Grade specific |
| <p>DISCHARGE (Time 4)</p> | <ol style="list-style-type: none"> 1. Conners' Parent Rating Scale (L) 2. SSRS Parent – Grade specific 3. SSRS Parent (for Staff) – Grade specific 4. SSRS Teacher – Grade specific 5. CBCL 6. PCRI 7. PSI OR SIPA – Age specific 8. Discharge Location Form (for staff) 9. CAFAS |
| <p>6 MONTH FOLLOW-UP (Time 5)</p> | <ol style="list-style-type: none"> 1. Conners' Parent Rating Scale (L) 2. Conners' Teacher Rating Scale (L) 3. SSRS Parent – Grade Specific 4. SSRS Teacher – Grade Specific 5. CBCL 6. PCRI 7. PSI OR SIPA – Age specific 8. TRF 9. CAFAS 10. BCFPI <div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-top: 20px;"> <p><i>PCRI & PSI/SIPA not included if CAS is guardian</i></p> </div> |

Appendix B

Letter to Complete Questionnaires for Pre-Admission

June 4, 2012

Guardian address

Dear Guardian(s) name(s),

Re: CHILD'S NAME

Please complete the enclosed questionnaires prior to your son/daughter's PRE-admission meeting and mail back as soon as possible. This information will be used at the PRE-admission meeting on meeting date, 2008, so it is important it is received by then. If you have any questions, please feel free to contact me. Thank you for your cooperation.

Sincerely,

Research Assistant
Applied Research & Education

Appendix C

Letter to Complete Questionnaires at Admission

June 4, 2012

Guardian(s) Address

Dear Guardian(s) Name(s)

Re: CHILD'S NAME

Please complete the enclosed questionnaires prior to your son/daughter's admission and mail back as soon as possible. This information will be used at the admission meeting on meeting date, 2008, so it is important it is received by then. If you have any questions, please feel free to contact me. Thank you for your cooperation.

Thank you.

Sincerely,

Research Assistant
Applied Research & Education

Appendix D
Consent Form

June 4, 2012

Please complete this form and return with your completed questionnaires.

Dear Guardian's Name(s),

As part of clinical care at the Child and Parent Resource Institute (CPRI), we collect a standard set of pre service, post service and follow up service questionnaires from all our clients. Please have one guardian complete these forms. Where possible, we do ask that the same individual completes all of the packages we send. If applicable, we also have your child's teacher complete a standard set of pre service, post service and follow up service questionnaires. The information gathered is helpful in planning clinical services as well as evaluating current service. We maintain a database comprised of information derived from these questionnaires, which helps us track the types of problems and issues that are treated by our programs. To ensure anonymity, no identifying information is entered into our database (that is, names will not be included with the questionnaire data that is entered into the database).

We currently have no plans to utilize the information in the database for purposes other than those directly relevant to our program at CPRI. However, it is possible that in the future we might utilize that information for a research project, and the results of that research might lead to a research publication. This letter is to let you know that this is a possibility, and to request your permission to use this information in possible future research endeavours. *Please note: the information gathered from questionnaires included in this package is required for use in clinical decision making and program evaluation. You have a choice as to whether you would like this information used in future research activities.* All information will be stored anonymously (names will not be included in any database or research reports). If you do not want this information to be used in research, it is important for you to know that this decision will not affect any future service you may receive at CPRI.

If you would like to discuss this with someone, you may contact Dr. Shannon L. Stewart, Psychologist and the Research Manager for the Child and Parent Resource Institute at 519-858-2774 x2064.

Please choose one of the following and return this form, along with your completed questionnaires to CPRI:

- I give my consent to the Child and Parent Resource Institute to use questionnaire information obtained for research purposes. I understand the information stated above and have no further questions.
- I do not give my consent to the Child and Parent Resource Institute to use questionnaire information obtained for research purposes. I understand the information stated above and have no further questions.

Parent/Guardian Name (*please print*)

Child Name (*please print*)

Parent/Guardian Signature

Child Signature (age 16+)

Date: _____

Table 1

Average Number of CPS Unit Measures Collected Across Time Points

| Measure | Pre (T1) | Post (T4) | FollowUp (T5) |
|-------------------------|----------|-----------|---------------|
| | <i>n</i> | <i>n</i> | <i>n</i> |
| CAFAS | 49 | 42 | 16 |
| PSI | 28 | 22 | 4 |
| SIPA | 16 | 16 | 7 |
| PCRI | 44 | 36 | 10 |
| CPRS | 46 | 40 | 12 |
| CTRS | 41 | . | 14 |
| CBCL | 25 | 26 | 7 |
| TRF | 4 | . | 49 |
| SSRS-P | 45 | 41 | 12 |
| SSRS-T | 38 | 30 | 6 |
| BCFPI | 43 | . | 19 |
| Casebook Review | 43 | 43 | . |
| Discharge Location Form | . | 22 | . |

Table 2

Means (Standard Deviations) for each Unit 2 Measure at Time Points: Pre (T1), Post (T4), and 6 Month FollowUp (FU; T5)

| | Pre-Post | | | Pre-FollowUp | | |
|---|----------|---------------|---------------|--------------|---------------|---------------|
| | <i>n</i> | <i>Pre</i> | <i>Post</i> | <i>n</i> | <i>Pre</i> | <i>FU</i> |
| Meltdowns: | | | | | | |
| Conners' Parent Subscale K | 36 | 76.86 (7.94) | 72.03 (10.06) | 12 | 76.08 (10.06) | 68.17 (9.76) |
| Social Skills: | | | | | | |
| SSRQ-P total | 38 | 68.97 (14.31) | 75.26 (11.45) | 12 | 68.50 (16.96) | 75.67 (13.61) |
| Conners' Parent Social Problems | 36 | 77.39 (15.57) | 74.67 (16.31) | 12 | 79.50 (16.52) | 71.33 (15.96) |
| CAFAS Behaviour Toward Others | 42 | 20.95 (6.92) | 15.71 (7.03) | 16 | 20.63 (7.72) | 15.00 (6.33) |
| Community Participation: | | | | | | |
| CAFAS Community Role | 42 | 9.05 (10.31) | 2.14 (4.70) | 16 | 5.00 (8.94) | 5.63 (8.92) |
| CBCL Activities Subscale | 0 | ... | ... | 1 | ... | ... |
| Academic Performance: | | | | | | |
| TRF Academic Performance Subscale | 0 | ... | ... | 1 | ... | ... |
| Conners' Teacher Cog Problems/Inattention | 0 | ... | ... | 12 | 64.67 (11.01) | 63.58 (9.22) |
| Family Awareness: | | | | | | |
| PCRI: Parent Support | 31 | 41.19 (11.12) | 47.00 (9.60) | 10 | 44.60 (10.14) | 43.20 (9.91) |
| PCRI: Satisfaction w/Parenting | 32 | 45.63 (8.31) | 47.06 (9.67) | 10 | 45.00 (7.07) | 44.30 (8.86) |
| PCRI: Involvement | 32 | 43.59 (10.17) | 45.25 (8.91) | 10 | 40.40 (10.04) | 39.90 (7.82) |
| PCRI: Communication | 32 | 36.81 (7.88) | 39.75 (6.84) | 10 | 34.10 (6.49) | 37.10 (8.44) |
| PCRI: Limit Setting | 32 | 41.88 (6.96) | 44.56 (7.89) | 10 | 43.60 (5.34) | 47.50 (8.76) |
| PCRI: Autonomy | 32 | 47.97 (8.90) | 49.06 (8.70) | 10 | 49.40 (8.90) | 53.30 (8.06) |
| PCRI: Role Orientation | 32 | 56.53 (8.27) | 56.94 (8.82) | 10 | 56.10 (7.48) | 58.80 (7.19) |

Table 2 (continued)

Means (Standard Deviations) for each Unit 2 Measure at Time Points: Pre (T1), Post (T4), and 6 Month FollowUp (FU; T5)

| | Pre-Post | | | Pre-FollowUp | | |
|---|----------|---------------|---------------|--------------|----------------|---------------|
| | <i>n</i> | <i>Pre</i> | <i>Post</i> | <i>n</i> | <i>Pre</i> | <i>FU</i> |
| Family Awareness: | | | | | | |
| PSI: Defensive Responding | 19 | 19.58 (5.82) | 20.84 (8.03) | 4 | 18.75 (8.18) | 20.75 (4.57) |
| PSI: Parental Distress | 19 | 31.37 (9.34) | 32.90 (12.64) | 4 | 29.00 (11.61) | 32.00 (9.59) |
| PSI: Parent-Child Dysfunctional Interaction | 19 | 32.26 (8.47) | 31.26 (11.45) | 4 | 30.50 (8.27) | 34.75 (8.34) |
| PSI: Difficult Child | 19 | 43.05 (6.96) | 40.74 (8.05) | 4 | 43.00 (7.07) | 42.00 (5.35) |
| SIPA: Adolescent Domain | 12 | 69.17 (10.29) | 68.17 (9.20) | 4 | 67.75 (11.50) | 66.75 (10.34) |
| SIPA: Emotional/Moodiness | 12 | 64.08 (10.87) | 61.92 (11.68) | 4 | 60.25 (12.53) | 64.00 (9.83) |
| SIPA: Social Isolation | 12 | 67.25 (9.67) | 68.75 (9.40) | 4 | 62.00 (12.41) | 61.75 (13.94) |
| SIPA: Delinquency/Antisocial | 12 | 64.75 (11.21) | 65.42 (7.08) | 4 | 67.00 (7.48) | 67.75 (9.81) |
| SIPA: Falure to Achieve/Perservere | 12 | 65.42 (7.79) | 63.17 (5.36) | 4 | 66.50 (6.76) | 60.25 (4.57) |
| SIPA: Parent Domain | 12 | 53.50 (13.13) | 56.17 (11.18) | 4 | 55.25 (9.22) | 54.75 (8.85) |
| SIPA: Life Restrictions | 11 | 55.73 (11.65) | 58.27 (9.97) | 4 | 52.25 (5.85) | 59.75 (16.40) |
| SIPA: Relationship w/Partner | 10 | 53.50 (10.30) | 56.00 (10.26) | 4 | 54.25 (10.63) | 51.00 (14.02) |
| SIPA: Social Alienation | 12 | 56.17 (9.72) | 55.08 (7.85) | 4 | 57.00 (12.03) | 55.75 (9.78) |
| SIPA: Incompetence/Guilt | 12 | 56.00 (13.18) | 55.33 (10.76) | 4 | 54.75 (10.75) | 48.00 (3.37) |
| SIPA: Adolescent/Parent Relationship | 12 | 53.50 (9.38) | 49.33 (6.91) | 4 | 56.00 (10.89) | 54.25 (10.21) |
| SIPA: Index of Total Parent Stress | 12 | 63.19 (10.21) | 62.75 (9.23) | 4 | 65.71 (9.32) | 61.57 (8.34) |
| SIPA: Life Stressors | 8 | 56.50 (17.00) | 58.75 (15.48) | 1 | ... | ... |
| BCFPI: Externalizing | 0 | ... | ... | 17 | 79.24 (7.03) | 66.77 (10.16) |
| BCFPI: 6 Mood & 3 Harm Indicators | 0 | ... | ... | 17 | 80.65 (23.64) | 61.24 (18.86) |
| BCFPI: Internalizing | 0 | ... | ... | 17 | 75.53 (16.97) | 63.00 (19.29) |
| BCFPI: Total, 6 Mental Health Domains | 0 | ... | ... | 17 | 81.24 (11.14) | 67.06 (15.11) |
| BCFPI: Global Functioning | 0 | ... | ... | 17 | 87.53 (12.04) | 65.53 (14.41) |
| BCFPI: Global Family Situation | 0 | ... | ... | 16 | 101.25 (21.11) | 80.31 (25.47) |
| Child's Needs (Casebook Review): | | | | | | |
| Discharge Placement Success | 22 | ... | 4.36 (1.59) | 0 | ... | ... |
| Number of Diagnoses at Discharge | 39 | ... | 2.87 (1.40) | 0 | ... | ... |
| Meds at Admission | 39 | 2.54 (1.17) | ... | 0 | ... | ... |
| Meds at Discharge | 39 | ... | 2.36 (1.16) | 0 | ... | ... |

Table 3

Summary of ANOVAs for Meltdowns, Social Skills, Community Participation and Academic Performance Variables at Admission Time Points: Pre (T1), Post (T4), and 6 Month FollowUp (T5)

| | Pre-Post (T1 vs T4) | | | | | Pre-FollowUp (T1 vs T5) | | | | |
|---|---------------------|-----------|-------|-----------|----------|-------------------------|-----------|-------|----------|----------|
| | <i>N</i> | <i>df</i> | Error | <i>F</i> | η^2 | <i>N</i> | <i>df</i> | error | <i>F</i> | η^2 |
| Meltdowns: | | | | | | | | | | |
| Conners' Parent Subscale K | 36 | 1 | 35 | 8.701** | 0.20 | 12 | 1 | 11 | 18.935** | 0.63 |
| Social Skills: | | | | | | | | | | |
| SSRQ-P Social | 38 | 1 | 37 | 7.551** | 0.17 | 12 | 1 | 11 | 8.499* | 0.44 |
| Conners' Parent Social Problems | 36 | 1 | 35 | 1.886 | 0.05 | 12 | 1 | 11 | 9.531* | 0.46 |
| CAFAS Behaviour Toward Others | 42 | 1 | 41 | 14.548*** | 0.26 | 16 | 1 | 15 | 6.361* | 0.30 |
| Community Participation: | | | | | | | | | | |
| CAFAS Community Role | 42 | 1 | 41 | 17.476*** | 0.30 | 16 | 1 | 15 | 0.086 | 0.01 |
| CBCL Activities Subscale | 0 | . | . | . | . | 1 | . | . | . | . |
| Academic Performance: | | | | | | | | | | |
| TRF Academic Performance Subscale | 0 | . | . | . | . | 1 | . | . | . | . |
| Conners' Teacher Cognition Problems/Inattention | 0 | . | . | . | . | 12 | 1 | 11 | 0.150 | 0.01 |

*Note: * $p < .05$, ** $p < .01$, *** $p < .001$*

*Note: ANOVAs were not conducted for *n* sizes less than 10*

Table 4

Summary of ANOVAs for Family Awareness at Admission Time Points: Pre (T1), Post (T4), and 6 Month FollowUp (T5)

| Family Awareness Measure | Pre-Post (T1 vs T4) | | | | | Pre-FollowUp (T1 vs T5) | | | | |
|---|---------------------|----|-------|-----------|----------|-------------------------|----|-------|----------|----------|
| | <i>N</i> | df | error | <i>F</i> | η^2 | <i>N</i> | df | error | <i>F</i> | η^2 |
| PCRI: Parent Support | 31 | 1 | 30 | 25.269*** | 0.46 | 10 | 2 | 9 | 3.368† | 0.27 |
| PCRI: Satisfaction w/Parenting | 32 | 1 | 31 | 1.567 | 0.05 | 10 | 2 | 9 | 0.140 | 0.02 |
| PCRI: Involvement | 32 | 1 | 31 | 2.005 | 0.06 | 10 | 2 | 9 | 1.139 | 0.11 |
| PCRI: Communication | 32 | 1 | 31 | 5.220* | 0.14 | 10 | 2 | 9 | 1.435 | 0.14 |
| PCRI: Limit Setting | 32 | 1 | 31 | 4.212* | 0.12 | 10 | 2 | 9 | 1.697 | 0.16 |
| PCRI: Autonomy | 32 | 1 | 31 | 0.528 | 0.02 | 10 | 2 | 9 | 0.837 | 0.09 |
| PCRI: Role Orientation | 32 | 1 | 31 | 0.107 | 0.00 | 10 | 2 | 9 | 0.707 | 0.07 |
| PSI: Defensive Responding | 19 | 1 | 18 | 0.886 | 0.05 | 4 | . | . | . | . |
| PSI: Parental Distress | 19 | 1 | 18 | 0.556 | 0.03 | 4 | . | . | . | . |
| PSI: Parent-Child Dysfunctional Interaction | 19 | 1 | 18 | 0.255 | 0.01 | 4 | . | . | . | . |
| PSI: Difficult Child | 19 | 1 | 18 | 2.673 | 0.13 | 4 | . | . | . | . |
| SIPA: Adolescent Domain | 12 | 1 | 11 | 0.245 | 0.02 | 4 | . | . | . | . |
| SIPA: Emotional/Moodiness | 12 | 1 | 11 | 0.501 | 0.04 | 4 | . | . | . | . |
| SIPA: Social Isolation | 12 | 1 | 11 | 1.243 | 0.10 | 4 | . | . | . | . |

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

† $p < .10$ (marginally significant)

Note: ANOVAs were not conducted for *n* sizes less than 10

Table 4 (continued)

Summary of ANOVAs for Family Awareness at Admission Time Points: Pre (T1), Post (T4), and 6 Month FollowUp (T5)

| Family Awareness Measure | Pre-Post (T1 vs T4) | | | | | Pre-FollowUp (T1 vs T5) | | | | |
|---------------------------------------|---------------------|-----------|-------|----------|----------|-------------------------|-----------|-------|-----------|----------|
| | <i>N</i> | <i>df</i> | error | <i>F</i> | η^2 | <i>N</i> | <i>df</i> | error | <i>F</i> | η^2 |
| SIPA: Delinquency/Antisocial | 12 | 1 | 11 | 0.099 | 0.01 | 4 | . | . | . | . |
| SIPA: Failure to Achieve/Perservere | 12 | 1 | 11 | 2.402 | 0.18 | 4 | . | . | . | . |
| SIPA: Parent Domain | 12 | 1 | 11 | 0.971 | 0.08 | 4 | . | . | . | . |
| SIPA: Life Restrictions | 11 | 1 | 10 | 0.596 | 0.06 | 4 | . | . | . | . |
| SIPA: Relationship with Partner | 10 | 1 | 9 | 0.766 | 0.08 | 4 | . | . | . | . |
| SIPA: Social Alienation | 12 | 1 | 11 | 0.259 | 0.02 | 4 | . | . | . | . |
| SIPA: Incompetence/Guilt | 12 | 1 | 11 | 0.036 | 0.00 | 4 | . | . | . | . |
| SIPA: Adolescent/Parent Relationship | 12 | 1 | 11 | 3.538† | 0.24 | 4 | . | . | . | . |
| SIPA: Index of Total Parent Stress | 12 | 1 | 11 | 0.034 | 0.00 | 4 | . | . | . | . |
| SIPA: Life Stressors | 8 | . | . | . | . | 1 | . | . | . | . |
| BCFPI: Externalizing | 0 | . | . | . | . | 17 | 1 | 16 | 26.939*** | 0.63 |
| BCFPI: 6 Mood & 3 Harm Indicators | 0 | . | . | . | . | 17 | 1 | 16 | 16.611** | 0.51 |
| BCFPI: Internalizing | 0 | . | . | . | . | 17 | 1 | 16 | 9.726** | 0.38 |
| BCFPI: Total, 6 Mental Health Domains | 0 | . | . | . | . | 17 | 1 | 16 | 20.455*** | 0.56 |
| BCFPI: Global Functioning | 0 | . | . | . | . | 17 | 1 | 16 | 38.471*** | 0.71 |
| BCFPI: Global Family Situation | 0 | . | . | . | . | 16 | 1 | 15 | 15.963** | 0.52 |

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

† $p < .10$ (marginally significant)

Note: ANOVAs were not conducted for *n* sizes less than 10

Table 5

Significant Pearson Correlations: Casebook Extractions and BCFPI Subscales

| Relationship | <i>n</i> | <i>r</i> | variance % |
|---|----------|----------|------------|
| Global Functioning and Diagnoses at Discharge | 18 | 0.504* | 25.4 |
| Meds at Discharge and Diagnoses at Discharge | 39 | 0.338* | 11.4 |
| Discharge Placement and Meds at Admission | 12 | 0.488* | 23.8 |
| Internalizing and Meds at Admission | 18 | - 0.418* | 17.5 |
| Meds at Discharge and Meds at Admission | 39 | 0.593*** | 35.2 |

*Note: *p < .05, ***p < .001*

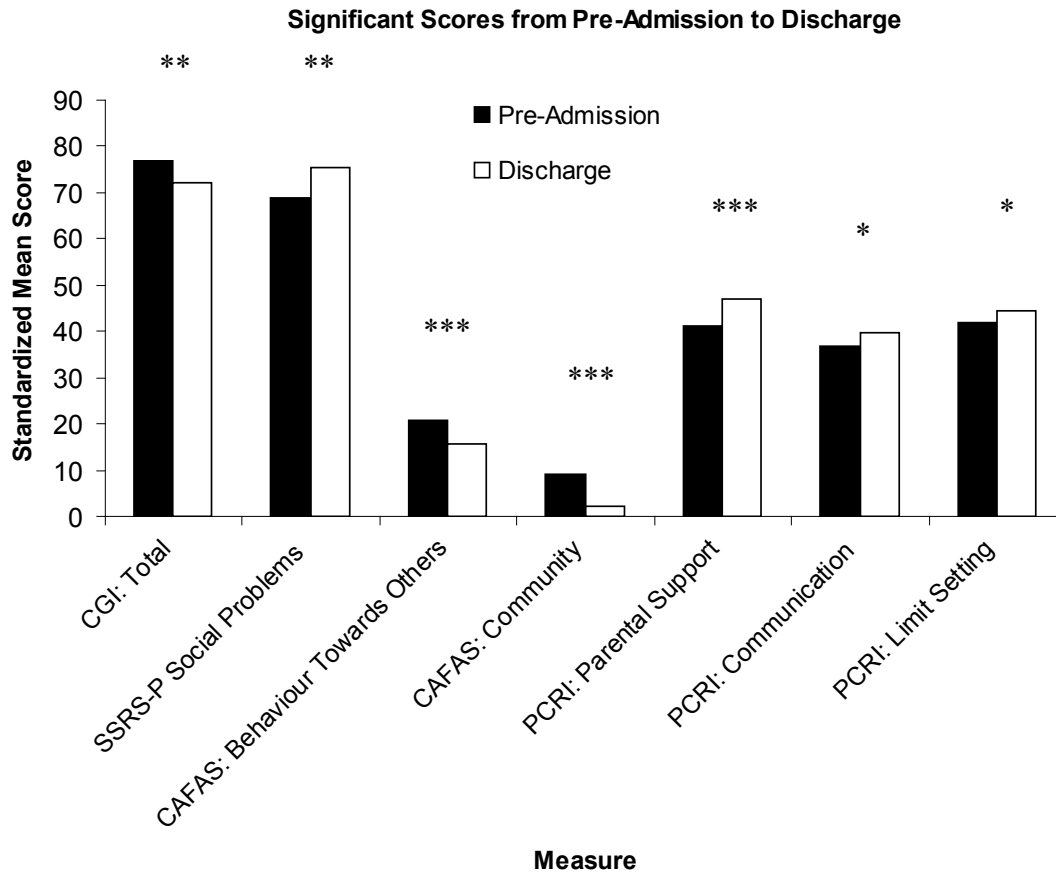


Figure 1. Comparison of significant mean scores from the time of pre-admission to the time a client was discharged. * $p < .05$, ** $p < .01$, *** $p < .001$.

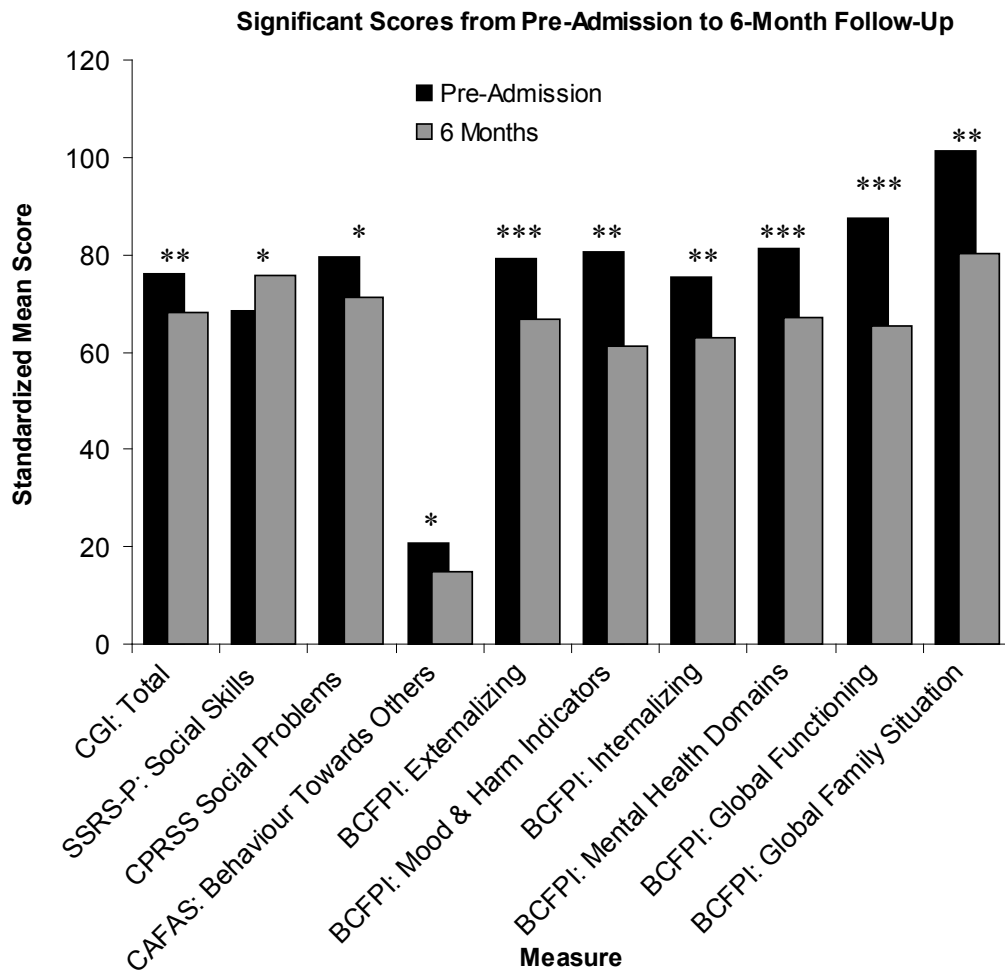


Figure 2. Comparison of significant mean scores from the time of pre-admission to the follow-up time point 6 months later. * $p < .05$, ** $p < .01$, *** $p < .001$.

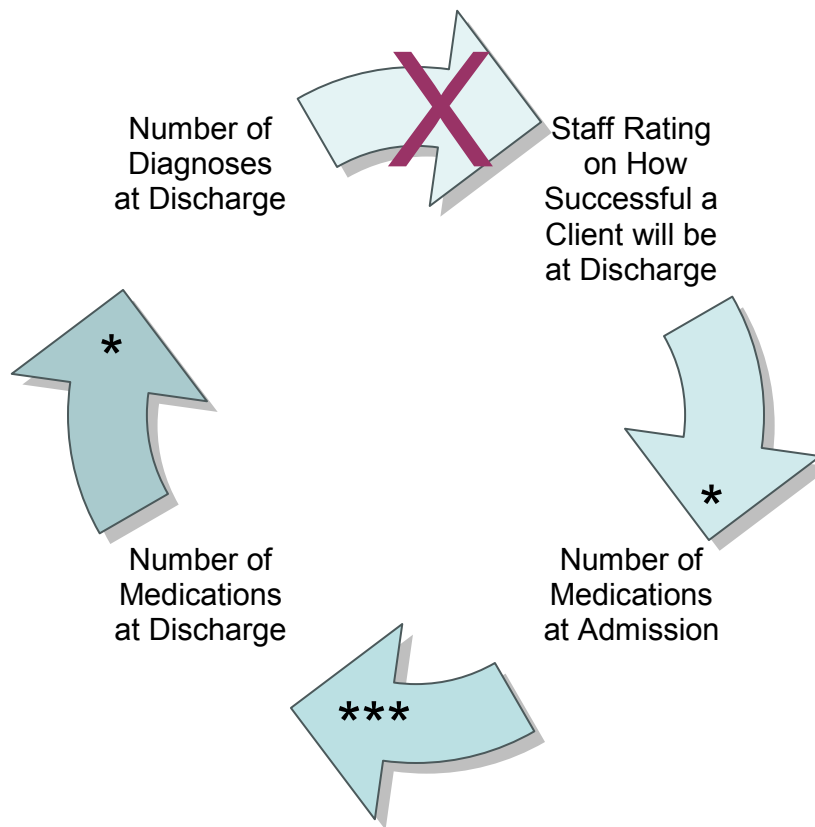


Figure 3. Pattern illustrated by the relationship between Diagnoses at Discharge and Discharge Placement.

* $p < .05$, *** $p < .001$