Fourth Interim Report: “Treatment for Children and Youth at Risk for Long-Term Antisocial Outcomes in Hard to Reach Families”.

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Executive Summary

The Behavioural Intervention program for youth with Conduct Disorder, and their families, is currently being conducted by a team led by Professor Kevin Ronan at CQUniversity, Rockhampton. This project which commenced in September 2009 is in partnership with the local Youth Justice Services, funded by the Department of Communities. Further funding is allowing the project to continue through April 2013, when the main research phase will be scheduled to finish. Additional funding has permitted the employment of another fulltime therapist from April 2012, who has started to take on a full-time caseload.

The project has been operational for approximately 32 months, with a total of 31 families either having finished or currently in treatment. A subset have been initially randomly assigned to the waitlist control condition (WL) (n = 13). Additionally, there are an additional 17 potential referrals currently requesting services from the program. With renewed funding and the addition of another FT therapist, and with the caseload of the senior therapist having some additional room, another phase of randomization to either treatment or the wait-list control group has again commenced from April 2012. That is, by mid-May, we anticipate that we will have randomly assigned 9 additional families to either Treatment or WL conditions (2 already assigned, 7 pending). Overall, we anticipate being able to see and complete treatment with 41-47 families by April 2013.

Results to date remain promising with Treatment Condition families typically indicating significant gains with regard to major instrumental outcomes (e.g., parenting and family factors linked to conduct disorder; young person behavior; peer affiliation; monitoring and supervision; family goals) in relation to the young person's conduct disorder-related problems. Results are based on regular collection of data prior to, during and following treatment delivery. By contrast, findings for the Waitlist

Control condition generally show no improvement and, in some cases, deterioration in these same outcomes. In terms of ultimate outcomes, for the Treatment Condition, in addition to improvement on a range of instrumental outcomes, findings to date support reduced criminality and delinquency as reported by (1) official offending statistics, (2) parents and (3) the young person. By contrast, no such change has been seen as a function of the Waitlist Control condition.

Additionally, regular administration of another measure, the Session Rating Scale (SRS), that assesses the level of family satisfaction with intervention services, indicates high levels of family satisfaction (average rating at completion over 9 on a 10 point scale). The SRS is completed by the parent with regard to their perception of how the program intervention overall is being conducted and permits the parent/s to indicate whether the needs and expectations of the family is being met and whether they are satisfied with individual sessions as well as with the service overall.

Overall, the findings to date prepare the groundwork for further evaluation of program outcomes, including reducing criminogenic risk, evaluation of cost savings, and larger scale dissemination of this program into usual service settings. In addition, we are currently in the final stages of writing up the pilot study cases (n = 4) as part of a manuscript for submission to a refereed, scholarly journal and will forward that manuscript prior to submitting it for publication (anticipated for May 2012) to ensure that the Department is happy with it prior to submission. In addition to evaluation, we have a strong focus on increasing capacity in the Rockhampton region and Central Queensland area and have increased the numbers of trained therapists both within our program and also within a variety of government and non-governmental (NGO) agencies. The next section provides more detail on these developments.

Additional Bridging funding provided by the Department of Communities has permitted the extension of this project until April 2013, extending initial bridging funding for the period from September 2010 until December 2011 that extended the initial 1 year grant that started in September 2009. This has allowed for a further increase in the number of families involved in the project and receiving the current intervention. Although an ARC Linkage application submitted in May 2011 with the Department as the industry sponsor was unsuccessful we have continued to develop relationships with, and have trained therapists who work within CQ Youth Justice Services, CQ Disability Services (EVOLVE), CQ Queensland Health (EVOLVE), CQU Master of Clinical Psychology Program (and Psychology Wellness Centre), Anglicare, and Darumbal Community Youth Services.

In terms of this project and program, and as a result of therapist training conducted in February and June 2011, an additional 4 part-time (.2) therapists became actively involved in the program bringing the total of PT therapists through March 2012 to 6 (Youth Justice Services n = 2, Disability Services Evolve, n = 1, QH Evolve n = 1, CQU Masters of Clinical Psychology n = 2). As of April 2012, the PT therapist from Disability Services Evolve has now been hired to work FT. This now brings current capacity to 2 FT therapists and 5 PT therapists. In addition, Darumbal Community Youth Services have used the program with a family after a staff member had been trained (under Prof Ronan's direct input and supervision, including travelling with the Darumbal therapist for an initial home visit to help introduce the program to the family). Although this case wasn't included in the current evaluation, reports from the therapist indicate quite favourable outcomes.

Numerous press interviews, presentations and meetings have continued to occur with various community agencies including Anglicare, Disability Services, Darumbal, Queensland Health and Community Care Services Queensland. Media

coverage, including newspaper and television, has continued to be favourable and well received given the significant need recognised in the community for families with youth displaying antisocial behaviour. Professor Ronan is also a member of the local Youth Justice Reference Group, chaired by the Regional Director. Prof Ronan also did additional 3 day training in January 2012 of youth and other support workers from a number of agencies to support work with this population of youth and families. Part of the profile that this Behaviour Intervention program has in the community is possibly one of the reasons for the substantial list of referrals requesting our services as described below. Another reason we are currently aware of is 'word of mouth' referrals based on positive outcomes in families who have completed the Intervention program.

The recent additional funding has permitted the re-commencement of the program assessment process – and randomization to research condition - for the 17 referrals currently seeking assistance. The additional FT therapist will allow those families having met the criteria to participate in treatment, either being randomly assigned to treatment group or waitlist group. More information follows in the body of the report.

Background to Project

Through the funding assistance of Department of Communities and a partnership between CQUniversity and the local Youth Justice office, the behavioural family intervention program for youth displaying anti-social tendencies was commenced, with personnel selection and training completed in September 2009. This intervention provides a service to both primary caregivers and the youth through the utilisation of a number of evidence-based interventions and techniques. Services are provided by trained qualified therapists, one of whom was funded by the Department of Communities grant through December 2011. With the recent funding, another FT therapist has been hired, bringing current therapist capacity within this program to 2 FT therapists and 5 PT therapists.

Additional in-kind support from Youth Justice allows two staff to see one case at a time (.2 FTE) and other in-kind support (e.g., use YJ vehicles used by YJ therapists when visiting the clients involved with the intervention). CQUniversity has also provided a range of in-kind supports, including through the funding of a Project Manager until July 2010. CQUniversity has also provided office space, computers and other office and therapy materials for the 2 FT Psychologists, CQU therapists and YJ therapists when actively involved in the intervention. The program itself is conducted under the auspices of the CQUniversity Psychology Wellness Centre. Additional voluntary support has also been provided by Bachelor of Psychology and Master of Clinical Psychology students who have completed, or are completing, their degree through CQUniversity. Two students are currently involved in the program as therapists and provide intervention to families. Other staff provide assistance as required with regard to the completion of treatment fidelity measures conducted monthly by phone contact with the families involved in the intervention program.

This is currently being done by the administrative officer of the CQU Psychology Wellness Centre.

The newly appointed FT therapist is now permitting some of the 17 families currently requesting services (which we have termed as the “Requested Waitlist”) to be included in the program and further the potential to increase the current referral and intervention capacity. Thus, the anticipated numbers of research participants in both Treatment and Waitlist Control conditions are increasing, with an anticipated inclusion of an additional 9 families to be randomly assigned to either Treatment or WL conditions by mid-May (2 assigned already; 7 pending). .

Purpose

The focus of the project is to ascertain whether an innovative intervention approach such as this has the capacity to diminish a gap in services by effectively reducing long-term risk for antisocial outcomes. This will include recidivism in at-risk Indigenous and non Indigenous youth in the middle years (8-15 yrs). The project is intended to deliver and assess the effectiveness of a ‘whole-of-family’ intervention protocol for youth identified as being at risk of long-term antisocial outcomes. The primary aims of the study are: (1) To engage with families who are considered difficult to engage with and who have youth with multiple risk factors for antisocial outcomes; (2) To reduce current antisocial behaviour and recidivism as well as risk factors that have the potential to increase or maintain antisocial behaviour in adulthood, including offending; (3) To test an integrated service model; (4) To target and respond to a gap in service provision in the middle years for families with youth who are considered at risk for antisocial and other maladaptive outcomes.

The research project is designed such that anticipated findings will strengthen and support the Department of Community’s evidence base for the identification and treatment of at-risk youth. Furthermore, that research results may indicate that this innovative approach has the potential to reduce the youth’s contact or re-contact with

juvenile justice and welfare systems in conjunction with increasing long-term benefits for the youth, the family and the community in general. The treatment intervention delivered during this program project includes assessment to identify current family and youth strengths in conjunction with associated risk factors which are then used to formulate intervention strategies for reducing antisocial behaviour displayed by the youth. Additionally, the intervention approach is designed to assist parents or caregivers to develop immediate and long-term strategies to reduce and maintain the reduction in antisocial behaviour and associated risk factors through the promotion of prosocial behaviour.

Method

Participants

Participants in the behavioural intervention program are youth aged between 8 and 15 years, and their caregivers. The youth and the family are referred to the program through various avenues including:

- Queensland Police Service Co-ordinated Response to Young People at Risk (CRYPAR);
- Child Youth and Mental Health Services (CYMHS);
- Rockhampton Base Hospital;
- Private Medical Practitioners;
- Community Psychologists and Social Workers;
- Department of Child Safety (DoCS);
- Education Queensland;
- Rockhampton Youth Justice;
- CQUniversity Wellness Centre;
- Family self-referral.

We have currently received 16 female and 66 male referrals (*M = 13yrs*) over the 32 month period this project has been operational. Of these referrals (*n = 82*), 31 have either completed or are in the treatment program currently, which includes 16 families who have completed the treatment program, with 10 currently in treatment,

and 1 in the WL Control Condition and another 7 families currently being randomly allocated. The program anticipates that by April 2013, 41-47 families will have participated in, and completed, the program.

Design

The time-frame for the initial study was 12 months however this has now been extended to April 2013, with the hope of extending to an additional three year project. Based on an agreement with the Department of Communities, the project commenced with an initial pilot study. The pilot study consisted of four families who were accepted for intervention with the first two families assigned to the FT Therapist and the third and fourth families to PT Youth Justice Therapists. A randomised controlled trial design was then utilised; it is noted that initial referrals accepted into the program from Youth Justice were not subject to the randomisation process to ensure that the YJ therapists were not kept waiting 4-6 months before starting to deliver the intervention service. However, since then, as YJ therapists then reached capacity, subsequent referrals were then eligible for the waitlist condition. Of the 31 families that are either currently in the program or have finished the program, sixteen families (*n = 16*) in total have currently completed the intervention program (*n = 9* have completed pre-post & 12-month post-treatment measures, *n = 6* have completed pre- and post-treatment measures and *n = 1* completed the program however did not complete the relevant post-measures). The group of *n = 15* included in this data is comprised of *n = 9* at 12-month post-treatment (all measures completed to 12-month post-treatment), *n = 2* close to 12-month, *n = 3* at 9-month and *n = 1* at 6 month post treatment. Only data for *n = 1* family is not included given that family did not complete post-treatment measures or Completion GTF. However, QPS data are available for that participant to evaluate official offending rates.

Measures

The project has utilised the same measures as discussed in previous reports. See previous reports or feel free to email Professor Ronan for copies of previous interim reports (k.ronan@cqu.edu.au).

Procedure

The project procedure has not altered from previous reports. See previous reports or feel free to email Professor Ronan for copies of previous interim reports (k.ronan@cqu.edu.au).

Results

Since October 2009, the program has accepted families that represent current or finished Treatment cases (*n = 31*), Waitlist Control participants (*n = 13*) and Requested Waitlist cases (*n = 17*). Given the total number accepted, the current referrals, and current therapist capacity, the anticipated numbers in each research condition by the end of this evaluation project (April 2013) look to be the following: Treatment (*n = 41-47*) and Waitlist (WL; *n = 17-21*). It is noted that any family assigned to the WL Condition then enters treatment after the WL condition is completed.

The current inclusion of another FT therapist now permits Requested Waitlist families who continue to be interested in participating to be randomly allocated to either the Treatment or Waitlist group. As of April 2012, this will allow the current number of families receiving treatment (*n = 10*) to increase to approximately *n = 15-20* by May 2012. Waitlist Control conditions will also increase (*n = 4-8*) under the current randomisation sequence.

Table 1 reveals the current demographic information for program participants. Mean age for participants who have completed or currently receiving intervention is 12.9 years and the mean age of participants who have been referred to the program is 13 years.

Demographic Information for Participants Accepted into Program (*n = 32*)

Age	8-9yrs	3	**Family**	Single Parent - Mum	13
	10-11yrs	2		Single Parent - Dad	4
	12-13yrs	13		Married	8
	14-15yrs	14		De-facto	5
				In Care	2
Education	Primary	6	**Gender**	Male	26
	8-10 Secondary	25		Female	6
	11-12 Secondary	0	**Ethnicity**	Indigenous	8
	Home Schooled	1		Non-Indigenous	24

Table1. Demographic information of participants accepted into program.

During the initial intake assessment, three specific treatment goals, those which the family would like to achieve for their youth over the duration of the program, are discussed and agreed on. These goals and the level of achievement are then tracked using the Goals Tracking Form (GTF). The GTF graph below (refer Figure 1) shows the combined mean scores for GTF levels of achievement from Baseline (B1) to GTF Completion phase (CP) for families (*n = 25*) who have either completed or are still receiving intervention. Of the 32 participants accepted into the program, *3* families dropped out of treatment and *1* family completed early. In this latter case, the family was satisfied with services but were not willing to fill out additional measures, including the GTF completion and post-treatment measures, though official offending data demonstrated favourable outcomes there.[1] As of late-April 2012, there are currently *n = 3* families (*n = 2* Treatment and *n = 1* Waitlist) who have only recently been accepted into the program and data for these participants,

[1] This rate of drop-out/early completion, 3/31 reflects a rate of approximately 10%. Research shows usual premature completion/drop-out rates for child and family services to average 40-60% (Ronan & Curtis, 2008). Thus, the premature completion rate is low. Alternatively pending the other families currently receiving services all completing treatment, with this anticipated to be the case, this would then reflect a completion rate of about 90%. Given that our meta-analysis of MST showed a completion rate of 86% (Curtis, Ronan, & Borduin, 2004), this figure compares quite favourably with MST completion rates.

other than demographic information, are not included in this report. Other families are currently being screened and added to the program as this report is being written.

Family Goal Tracking Outcomes

Figure 1 indicates the overall progress toward successful goal achievement at completion in a 4-6 month intervention program with cases who have completed the treatment program and either are currently in or have fully completed the 12 month follow-up (FU) phase. Progress from pre-treatment baselines (B1 & B2) data to the completion phase (CP) across families indicates an overall positive trend toward goal achievement (refer Table 2). For example, mean GTF scores for the family's primary goal (Goal 1) related to the young person's conduct disordered behavioural problems indicate an improvement of over 500% from the GTF baseline phase (B1 = 1.3) to the GTF completion phase (CP = 7.9). Goal 1 level of achievement improved further between the completion phase (CP = 7.9) to the12 month post-treatment interval (12m = 8.3) indicating an overall improvement of approximately 533%. Goals 2 & 3 similarly improved over the 12 month post-treatment interval (Goal 2, CP - 7.6 to 8.1 at 12m interval, Goal 3, CP - 7.8 to 8.3 at 12m interval). Overall average improvement across the 3 goals combined indicates a mean overall improvement of approximately 425% (Baseline -1.63 to 8.23 – 12month interval) in the level of Goal Achievement.

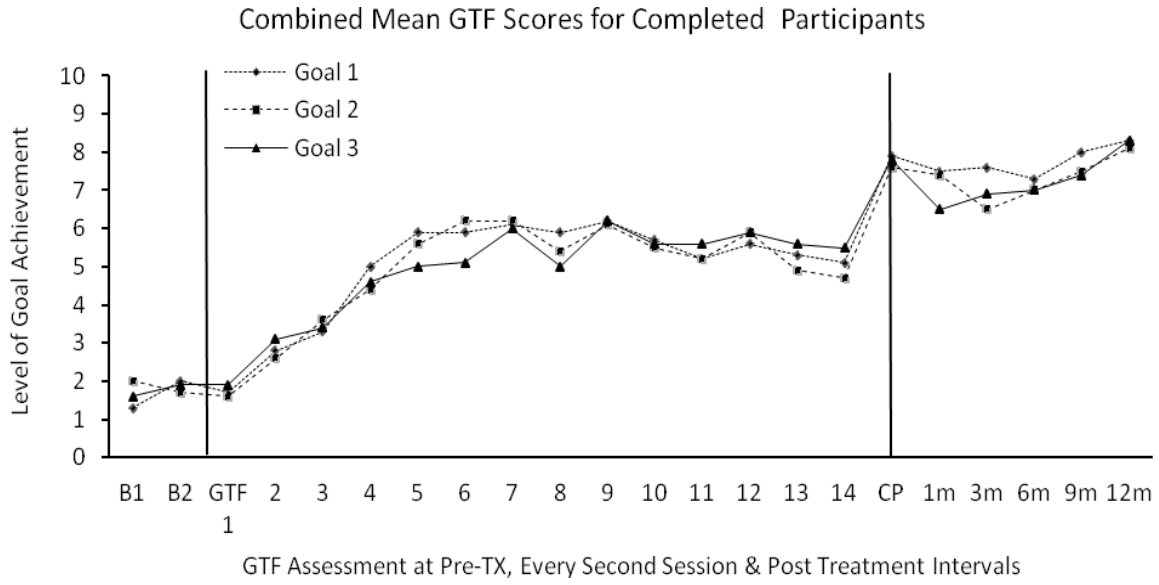

Figure 1. Combined Mean GTF Scores & Level of Achievement for Fully Completed (*n = 15*) Participant group.

Note: B1 - B2 = baseline GTF evaluation prior to commencement of therapy services,GTF1 - CP = GTF evaluations completed every second session over the duration of intervention and at the completion of intervention and CP – 12m = evaluations at 1 month, 3 month, 6 month, 9 month & 12 month intervals.

Table 2 provides the combined mean scores at each GTF assessment for participants who have completed both intervention and 12 month FU (*n = 15*). The 9 families who have now fully completed the 12 month post-treatment follow-up phase demonstrate stability and some slight improvement in positive behaviour for their young person over the 12 month FU interval. These data provide evidence to support the idea that families have acquired the skills to help the young person maintain improved positive behaviour following treatment, including coping effectively with relapses.

Combined Mean GTF Scores for Completed Participants (*n = 15*)

GTF	**B1**	**B2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Goal1	1.3	2.0	1.7	2.8	3.3	5	5.0	5.9	6.1	5.9	6.2
Goal2	2.0	1.7	1.6	2.6	3.6	5.2	4.4	5.6	6.2	5.4	6.1
Goal3	1.6	1.9	1.9	3.1	3.4	4.4	4.6	5.0	6.0	5.0	6.2
GTF	**10**	**11**	**12**	**13**	**14**	**CP**	**1m**	**3m**	**6m**	**9m**	**12m**
Goal1	5.7	5.2	5.6	5.3	5.1	7.9	7.5	7.5	7.3	8.0	8.3
Goal2	5.5	5.2	5.9	4.9	4.7	7.6	7.4	6.5	7.0	7.5	8.1
Goal3	5.6	5.6	5.9	5.6	5.5	7.8	6.5	6.9	7.5	7.4	8.3

Table 2 Combined Mean GTF Scores for Goals 1, 2 & 3 at Baseline (B1), Completion Phase (CP) & the 12 month intervals (12m)

Figure 2 indicates the combined mean GTF for all families that have participated in the program and have either completed or are currently in the treatment phase. Results indicate that although some participants (*n = 4*) required a longer period of intervention with significant relapse occuring between the GTF 11 to16 stage (*n = 2*) and at the GTF 20 stage (*n = 1*) the overall trend remained in the positive direction with level of achievement improving as families near completion (refer to Table 3 for level of achievement scores and significant relapse periods).

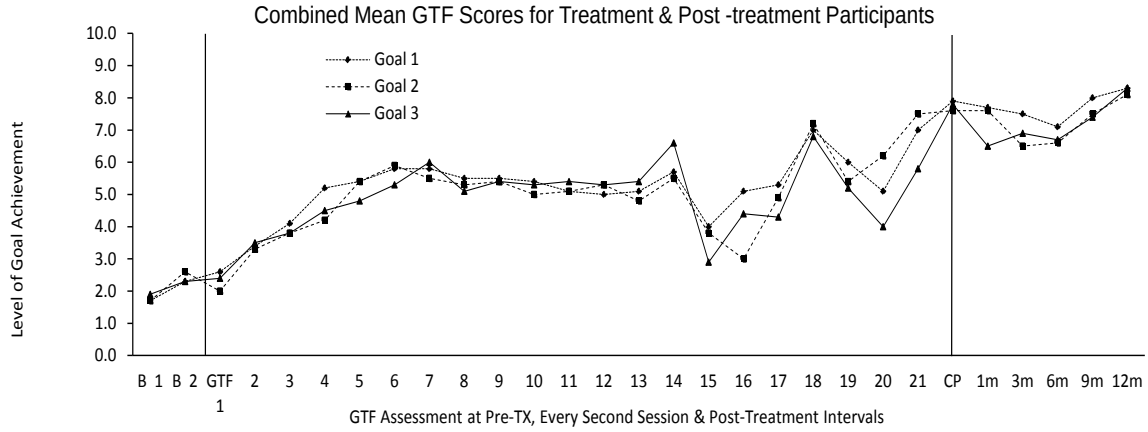

Figure 2. Combined Mean Goal Tracking Scores for Current (*n = 10*) & Completed (*n = 15*) Participant group.

Note: B1 - B2 = baseline GTF evaluation prior to commencement of therapy services, GTF1 - CP = GTF evaluations completed every second session to the completion phase of intervention & 1m –12m =1 month to 12 month Post-treatment evaluations intervals.

Table 3 provides all combined mean scores at each GTF for participants who have completed intervention (*n = 15*) and participants currently receiving intervention (*n = 10*). Overall the results indicate a considerable improvement in the level of goal achievement for families from the baseline scores to the completion scores. Although during the GTF 11 to 16 period significant relapse occurred for 2 families with GTF level of achievement dropping across all 3 goals (*Mean = 1.6*) and 1 family experienced significant relapse at GTF 20 for goal 3 leading to a reduced overall mean score (4.0), all 3 families then improved at the CP stage. It should be noted that as participants are at various stages in the program the final data will differ from the mean scores currently indicated.

Combined Mean Goal Tracking Scores for Current & Completed Participants

GTF	**B1**	**B2**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Goal1	1.7	2.3	2.6	3.4	4.1	5.2	5.4	5.8	5.8	5.5	5.5	5.4
Goal2	1.7	2.6	2	3.3	3.8	4.2	5.4	5.9	5.5	5.3	5.4	5.
Goal3	1.9	2.3	2.4	3.5	3.8	4.5	4.8	5.3	6.	5.1	5.4	5.3
GTF	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**CP**
Goal1	5.1	5.	5.1	5.7	4	5.1	5.3	7	6	5.1	7	7.9
Goal2	5.1	5.3	4.8	5.5	3.8	3.	4.9	7.2	5.4	6.2	7.5	7.6
Goal3	5.4	5.3	5.4	6.6	2.9	4.4	4.3	6.8	5.2	4	5.8	7.8

Table 3 Combined Mean Goal Tracking Scores for Current (*n = 10*) and Completed (*n = 15*) participants from Baseline to Completion of Program.

Table 4 indicates the individual level of achievement for GTF scores for families that have completed the program and are either finished with the 12 month FU (*n = 9*) or are in the 12 month FU phase (*n = 6*). Results indicate that positive improvement in level of goal achievement occurred for all participants from baseline scores pre-treatment to treatment completion and this positive trend continued for most participants even when some relapse periods were indicated. The number of booster sessions requested by families (*n = 4*) supports the notion that overall families are equipped with the skills to maintain positive behaviour linked to the goals set by the family.

Combined GTF Mean for Goal 1, 2 & 3 for Individual Participants in Post TX (*n = 15*)

Client	B1	CP	1m	3m	6m	9m	12m	Booster Sessions
002	1.8	6.7	5.7	4	5.7	6.5	8.3	1 x 1 hour
003	0.2	8	9.5	7.8	9.7	9.3	8.3	0
006	1.5	7.5	3.0	4.3	7.0	7.0	7.0	0
015	2	9.8	8.7	9.7	9	8.3	9.7	1 x 1 hour
017	2.7	3.7	5.7	8.2	4.7	6.8	8.7	0
020	0.9	9	6	5	6.3	5.7	7.3	0
022	0.8	6.3	6.3	4.7	4.3	5.8	7.0	1 x 1 hour
026	1.1	8.5	7.8	8.0				0
028	0.7	7.7	8.3	8.3				0
030	3.1	8.8						0
031	2.3	6.7	6.7	5.3	7.3	7.8	n/a	0
032	2.7	7.3	4.8	6.2				0
033	3.3	9.3	9.3	9.7	8.8	9.3	9.3	1 x 1 hour
035	1.5	9	9.5	9.5				0
036	1.5	8	8.5	7				0

Table 4 Individual GTF Mean for Goals 1, 2 & 3 for Participants in the Post-Treatment Phase.

NOTE: Booster sessions are offered to participants during this phase and the duration is approximately 1 hour. The average of Goal 1, 2 & 3 are individual goals set by each client. B1 = baseline goal tracking prior to treatment, CP = goal tracking at the completion of treatment, 1m = one month after completion, 3m = 3 months after completion, 6m = 6 months after completion, 9 m = 9 months after completion and 12m = 12 months after completion.

Goals Tracking for Waitlist Condition

Figure 4 shows combined mean GTF scores for waitlist participants from baseline GTF (B1) to Pre-TX GTF (BWL 11) prior to the families' inclusion in the treatment condition (*n = 12;* it is noted that one additional family just assigned to the WL is not reflected here as they have just started the WL condition in the past week). The scores indicate overall that no improvement occurred for participants in the Waitlist group with a noticeable decline in behaviour toward the end of the waitlist phase. This suggests that positive behaviour is unlikely to occur for participants in the waitlist condition, prior to the start of treatment.

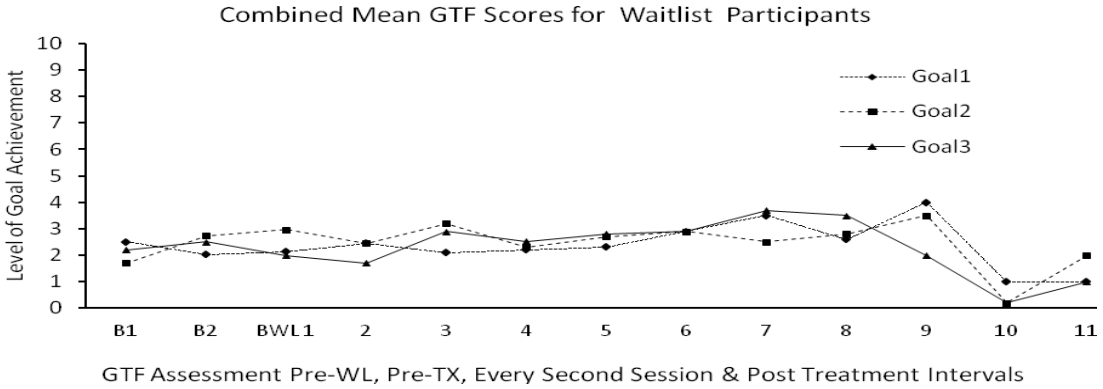

Figure 4. Combined Mean Goal Tracking scores for Waitlist participant group.

Note: B1 - B2 = initial baseline GTF evaluations; BWL1 – 11 = evaluations completed every month prior to inclusion in treatment condition.

Table 5 shows the mean goal tracking baseline scores for the Waitlist group prior to inclusion in the treatment condition (*n = 12*). Mean scores for this group indicate reductions (deterioration) in level of achievement for targeted behaviours from B1 to BWL11 for goal 1 & 3 and a slight increase (improvement) in behaviour related to goal 2. Thus, overall the waitlist group revealed a fairly stable trend of no significant positive improvement as related to family goals. For example, an individual primary goal of 'reducing physical aggression in my youth' became worse for the participant over the duration of being in the waitlist. Compared to the treatment condition group results (refer Table 2) which showed significant improvement over the duration of the treatment phase, the waitlist group has shown no change.

Combined Mean GTF Baseline Scores Pre-treatment for Waitlist Group

GTF	B1	B2	BWL1	BWL2	BWL3	BWL4	BWL5	BWL6	BWL7	BWL8	BWL9	BWL10	BWL11
G1	2.5	2	2.1	2.5	2.1	2.2	2.3	2.9	3.5	2.6	4	1	1
G2	1.7	2.7	3	2.5	3.2	2.3	2.7	2.9	2.5	2.8	3.5	0.2	2
G3	2.2	2.5	2	1.7	2.9	2.5	2.8	2.9	3.7	3.5	2	0.2	1

Table 5 Combined Mean Goal Tracking Baseline Scores for Waitlist Group Pre-TX

Family Service Satisfaction

Additional data with regard to the families' satisfaction with services and with individual sessions are also available. The Session Rating Scale (SRS) provides clients with the opportunity to discuss with their therapist what they think is going well with the session, and perhaps more importantly, what they think could be improved. Families are provided with a rationale for providing constructive, or even negative feedback, about the program as follows: Findings indicate that in therapy where clients are willing to share such information, research indicates that programs that are open to receiving such information can then improve services and, further, improve client engagement and outcomes.

As Figure 4 indicates, family's ratings regarding satisfaction with services being received is high, with average ratings on the four items being at or above 9.5 on a 10 point scale. While this is encouraging, and pleasing for the program, client satisfaction and progress levels continue to be monitored and discussed with families on a regular basis to ensure the best possible intervention service is being provided.

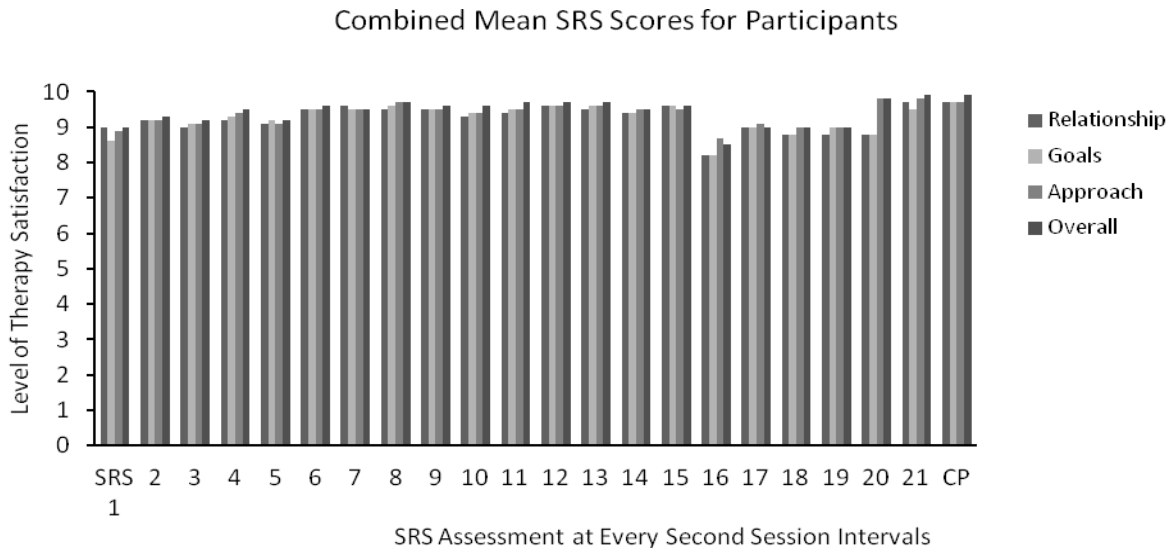

Figure 4. Combined Mean session rating scales for entire participant group across treatment.

Note: Relationship = I felt heard, understood and respected; Goals = we worked on and talked about what I wanted to work on and talk about; Approach = the therapist's approach was a good fit for me; Overall = overall, today's session was right for me.

Treatment Condition: Offending and Instrumental Outcomes

Offending Outcomes

Table 6 shows Parent- reported outcomes on the Delinquency Scale based on mean scores at treatment completion (Post-TX, *n = 15*). The current data as reported by the parent are quite encouraging as it reflects a large reduction in 'total offending', in 'norm violation', in 'interpersonal aggression', in 'theft', in 'destructive vandalism' and 'illegal' subscales, with no real change noted in 'drug and alcohol'.

Youth Offending and Related Behaviour Pre-Post Treatment: Parent Report (*n = 15*)

SRD Subscales	Pre-TX (n =15)	Post-TX (n = 15)
Total offending	.50	.24
Norm violations	.47	.19
Interpersonal Aggression	.54	.21
Theft	.56	.26
Drug & Alcohol	.23	.22
Destructive vandalism	.46	.16
Illegal	.53	.29

Table 6 Parent-reported outcomes on Self-Reported Delinquency Scale (SRD) (*n = 15*).

Table 7 shows Parent- reported outcomes on the Delinquency Scale based on mean scores at 12 month FU. The current data as reported by the parent are quite encouraging as it reflects a large reductions in 'total offending' and decreases on all subscales though it is noted that the Drug and Alcohol only dropped marginally across the pre-12 month FU interval. All the rest of the subscales, and the Total, dropped substantially across treatment and these changes were all maintained or continued to improve (theft subscale in particular) across the 12 month FU interval.

Youth Offending and Related Behaviour Pre-12 MO FU: Parent Report (*n = 9*)

SRD Subscales	Pre-TX (*n = 9*)	Post-TX (*n = 9*)	12m FU (*n = 9*)
Total offending	.64	.20	.17
Norm violations	.63	.16	.16
Interpersonal Aggression	.70	.17	.19
Theft	.76	.24	.12
Drug & Alcohol	.31	.13	.25
Destructive vandalism	.60	.15	.15
Illegal	.65	.25	.19

Table 7 Parent-reported outcomes on Self-Reported Delinquency Scale (SRD) (*n = 9*).

Table 8 shows Youth-reported outcomes on the Self Reported Delinquency Scale based on mean scores at treatment completion (Post-TX, *n = 11*).[2] The current data as reported by the young person are also encouraging as it reflects reductions in 'total offending', in 'norm violation', in 'interpersonal aggression', in 'theft', in 'illegal', in 'destructive vandalism', and a lesser reduction in "drug and alcohol." Furthermore, it needs to be noted that some youth did not complete the SRD scale for the Pre TX phase (*n = 4*) leaving valid participants (*n = 11*).

Youth Offending and Related Behaviour Pre-Post Treatment: Youth Report

SRD Subscales	Pre-TX (*n = 11*)	Post-TX (*n = 11*)
Total offending	.50	.17
Norm violations	.52	.16
Interpersonal Aggression	.41	.13
Theft	.48	.18
Drug & Alcohol	.34	.25
Destructive Vandalism	.55	.11
Illegal	.49	.18

Table 8 Youth-reported outcomes on Self Reported Delinquency Scale (*n = 11*).

Table 9 shows Youth-reported outcomes on the Self Reported Delinquency Scale based on mean scores at 12m FU (12m FU, *n = 8*).[3] The current data as reported by the young person are also encouraging as it reflects reductions in 'total offending' and across subscales. It needs to be noted that one youth did not

complete the SRD scale for the 12 month post-treatment phase (12m Post-TX, *n = 1*) leaving the valid participants at *n = 8*.

Youth Offending and Related Behaviour Pre-12 MO FU: Youth Report

SRD Subscales	Pre-TX (n = 8)	Post-TX (n = 8)	12m Post TX (n = 8)
Total offending	.44	.18	.05
Norm violations	.44	.18	.06
Interpersonal Aggression	.36	.13	.03
Theft	.42	.19	.04
Drug & Alcohol	.30	.23	.07
Destructive Vandalism	.45	.13	.02
Illegal	.44	.19	.03

Table 9 Youth-reported outcomes on Self Reported Delinquency Scale (n = 8).

Table 10 shows the comparison from pre-treatment to 12 month post-treatment parent report and youth report of the SRD for valid cases where data for both sets were available (*n = 8*). Youth generally reported at pre-treatment less 'total Offending', 'norm violations', 'interpersonal aggression', 'theft' and 'destructive vandalism' and only reported higher levels than parents for 'drug & alcohol'. These differences were not found to be as noticeable in the post-TX or 12m FU reports, with the exception of post-treatment 'drug and alcohol' scores. Parents were marginally higher than youth in the 12m FU phase across most indicators, with the exception of 'theft'.

Comparison of Parent & Youth Offending Reports (*n = 8*)

SRD Version	**Parent**	**Youth**	**Parent**	**Youth**	**Parent**	**Youth**
	Pre-TX	**Pre-TX**	**Post-TX**	**Post-TX**	**12m Post-TX**	**12m Post-TX**
Total offending	.60	.44	.14	.18	.08	.05
Norm violations	.57	.44	.10	.18	.08	.06
Interpersonal Aggression	.68	.36	.08	.13	.09	.03
Theft	.72	.42	.18	.19	.03	.04
Drug & Alcohol	.24	.30	.02	.23	.14	.07
Destructive Vandalism	.58	.45	.11	.13	.05	.02
Illegal	.62	.44	.18	.19	.07	.03

Table 10 SRD Pre-TX, Post TX & 12m Post-TX Comparison of Parent & Youth Report (*n = 8*)

Official Offending Data

In terms of offending based on official offending statistics, across the total number of youth who have completed treatment (n = 15), including the young person from the family that completed treatment without filling out additional evaluation measures (*n = 1; Total N = 16*), 6 were arrested and charged with offences in the 6 months prior to beginning the program (n = 5) or during the program (n = 1; one charge of public nuisance; this young person also had a previous arrest record dating back to 2007 for assault). Of those 5 with offending in the 6 month pre-treatment interval, 2 had charges laid also while in the program. One of these 2 also had charges laid when the program finished during the first 6 month follow-up interval (specifically, 6 months and 12 days). However, no more charges were laid in the rest of the 12 month FU interval, for that young person or any of the additional 5 participants, all of whom but one have finished through the 12 month FU interval (including the YP who offended in the first 6 month FU interval). As seen on Table 11, the offending frequency totals across 12 month intervals prior to and during treatment and following treatment across these participants (*n = 6*) can be seen.

Official Offending Rates

12 months before-during tx	12 months following tx
30 charges	10 charges*

Table 11. *All of these charges were for n = 1 young person and all were in the first 6-month FU interval (specifically, 6 months and 12 days following treatment completion). This young person then didn't record any offences in the rest of the 12 month FU interval (see below). Note that the previous interim report recorded 11 offences in the 12 months following tx interval, when in fact it should read 10 as in the current table.

As seen on Table 12, in terms of who of the 6 offended in what intervals, the frequencies are as follows:

Numbers of Young Persons Offending in 6 Monthly Intervals

6 mo before tx	During tx	6 mo following tx*	7-12 mo following tx
5	3	1	0

Table12. *last set of offences were 6 months and 12 days following treatment completion. NB. Of the 6 young persons represented here (the sixth had previous offending but none in

the 6 months prior to treatment starting), 5 have finished 12 month FU, the 6th is between 3 and 6 month FU intervals.

Also of note, in terms of preventing offending, besides this sample of 6 treatment completers, none of the other treatment completers (n = 10) committed offences during any of the study intervals, including during follow-up.

It is also worth noting that of the all families involved in treatment, only one family – one of the two families who dropped out prematurely and against therapist advice - had the young person go on to offend, having had no offence history prior to the program (i.e., the referral was from the parent). In fact, this young person has had 4 separate offending incidents, starting 6 months following the family dropping out, accumulating a total of 14 separate charges (including 3 for common assault; 1 assault with bodily harm; 1 obstructing police; entering with intent and unlawful entry and use of a vehicle, willful damage).

Instrumental Outcomes: Parenting, Family, and Youth Functioning

Table 13 shows improvements identified in parenting/family issues measured on the Alabama Parenting Questionnaire (APQ) across specific subscales including the Monitoring and Supervision, Positive Parenting, Inconsistent Discipline and on the the Multisystemic Behavioural Rating Scale which measures family/peer/youth issues.

APQ Parenting and Family Factors at Post-Treatment (*n = 15*)

Parenting Factors	Pre-TX	Post TX
Poor Supervision & Monitoring	2.2	2.0
Positive Parenting	3.7	4.2
Inconsistent Discipline	2.9	2.3
Positive Family/Peer/YP Issues (MBRS)	2.8	3.6

Table 13 Parenting Factors Measured on the APQ and the MBRS (*n = 15*).

Table 14 shows improvements identified in parenting/family issues measured on the Alabama Parenting Questionnaire (APQ) across specific subscales such as

the Monitoring and Supervision, Positive Parenting, Inconsistent Discipline and the Multisystemic Behavioural Rating Scale which measures family/peer/youth issues.

APQ Parenting and Family Factors at 12 month Post-Treatment (*n = 9*)

Parenting Factors	Pre-TX	Post TX	12 month Post TX
Poor Supervision & Monitoring	2.5	1.9	1.9
Positive Parenting	3.6	4.2	4.1
Inconsistent Discipline	3.3	2.5	2.2
Positive Family/Peer/YP Issues (MBRS)	3.0	3.7	3.9

Table 14 Parenting Factors Measured on the APQ and the MBRS (*n* = *9*).

Waitlist Control Condition: Offending and Instrumental Outcomes

Table 15 shows Parent- reported outcomes on the Delinquency Scale for the Waitlist (WL) group (n = 12). The results as reported by the parent indicate that overall no improvement occurred for families in the WL condition. For instance, the amount of 'total offending', 'norm violations', 'destructive vandalism' and 'drug & alcohol' subscales show offending increased with only minimal decrease for 'theft' and 'illegal' and with 'interpersonal aggression' showing a greater decrease.

SRD - Youth Offending and Related Behaviour: Parent Report (*n = 12*)

SRD Subscales	Pre-WL	Post-WL Pre-TX
Total offending	.43	.45
Norm violations	.34	.40
Interpersonal Aggression	.64	.43
Theft	.38	.35
Drug & Alcohol	.40	.60
Destructive vandalism	.35	.37
Illegal	.53	.51

Table 15 Parent-reported outcomes on Self-Reported Delinquency Scale (SRD) for Waitlist Group (n = 12).

The Youth SRD shows the same pattern. Additionally, all official offending records for WL participants were not yet available (but have been requested). That data will be forwarded when it is available. However, for the 2 that we do have data

for that have official offending records, one had 4 offences in the 6 months prior to being placed in the Waitlist Condition. During Waitlist, that young person then went on to record an additional 11 offences (including assault, break and enter, unlawful use of a vehicle). The other had 0 offences in the 6 months prior to being placed in the Waitlist Condition (and, of note, 0 lifetime offences). However, while in the Waitlist Condition, he was charged with one count of stealing.

Table 16 shows that in the Waitlist Condition group there was deterioration on all subscales of the Alabama Parenting Questionnaire (APQ) including Poor Monitoring and Supervision, Positive Parenting and Inconsistent Discipline. For the Multisystemic Behavioural Rating Scale (which measures family/peer/youth issues), there was no change seen from the beginning to the end of the Waitlist Condition.

APQ Parenting and Family Factors for Waitlist Group (*n = 12*)

Parenting Factors	Pre-WL	Post-WL Pre-TX
Poor Supervision & Monitoring	2.1	2.7
Positive Parenting	4.0	3.8
Inconsistent Discipline	2.8	3.0
Positive Family/Peer/YP Issues (MBRS)	2.4	2.4

Table 16 Parenting Factors Measured on the APQ and the MBRS for Waitlist (*n = 12*).

Additional Developments: Pilot Study and Other Manuscripts

We are currently finalising the Pilot Study manuscript for submission to a peer reviewed journal to report on the outcomes for our pilot study cases (n = 4). We will forward that manuscript along prior to submitting it for publication. In addition, the full group comparison trial will also start to be written up in the latter part of 2012, early 2013 as final family participants finish the intervention. The manuscript itself will need to wait until all 12 month follow-up evaluations are completed in late 2013 and early 2014. Alongside this planned manuscript of the full RCT, and the almost

completed manuscript reflecting the pilot study findings, another manuscript has been initiated that summarised and reports on the development of this program and its innovations, planned to be submitted to the journal *Aggression and Violent Behavior*. Like with any other manuscript, we will make sure to run pre-submission drafts by the Department to ensure the Department is happy with its contents.

Discussion

When participants enter the program, many parents and caregivers typically describe themselves as being at their 'wits end', 'had a gutful' and other descriptions that appear to characterise a sense of frustration and possible hopelessness in relation to their young person's highly disruptive behaviour. In fact, our assessment has indicated that most of our families appear to have at least one parent/caregiver who meets criteria for a depressive disorder. Most families have been exposed to a number of different support agencies in the past, which ultimately has not reduced the youth's problematic behaviour or assisted caregivers with developing adequate strategies and coping skills. It is pleasing to report that to date, this new intervention program appears to be making a difference and assisting caregivers to reduce problematic behaviours displayed by their youth. By contrast, there is little change for participants as a function of the wait-list control condition, across goals, instrumental outcomes and ultimate outcomes. Thus, it appears that via treatment, youth are reducing their criminogenic, delinquent and antisocial behaviours as indicated through official reports, parent reports and youth reports while, at the same time, appear to be increasing their prosocial behavior whereas those not in treatment are not improving. Additionally, family goals are seen across participants to consistently improve across treatment whereas they are seen not to be improving across the wait-list control condition, supporting the impact of treatment empowering families to achieve a variety of goals in relation to their young person's functioning. For example, youth are more consistent in school attendance, returning to school

after being expelled, enrolling in skills training programs, managing anger more effectively, engaging in more prosocial behaviours in and out of the home, and communicating with their families and others in a way that many parents have not experienced in a considerable time, if ever at all. Increased positive interaction as indicated on the Multisystemic Behaviour Rating Scale and more positive parenting as indicated on the Alabama Parenting Questionnaire appear to reflect the fact that the changes that families are making are helping their young person reduce antisocial behaviours and increase prosocial behaviours. Ratings on the APQ and MBRS also appear to reflect that the treatment is helping parents take the lead in creating more positive family climates, and happier homes, for family members. By contrast, ratings of parenting and family factors have been seen to deteriorate across the WL control period (on all scales of the APQ) or not change (on the MBRS). Data also support the idea that therapists involved in this program are committed and motivated with regard to providing a quality service to their clients, reflected in consistently high scores on the Session Rating Scale. Coupled with documented findings of both positive outcomes and high levels of service satisfaction, anecdotal reports from the parents/caregivers who have completed the intervention program, indicate a high level of overall satisfaction. In fact, we have had 3 separate families write unsolicited letters to their therapists talking about the depth of their satisfaction with the outcomes of the intervention for their young person and for the family.

Overall, in the relatively short period this program has been operational, considerable interest continues to be generated within the community. Community talks regarding the program have been well attended and received highly favourable media attention, including a number of articles by the Rockhampton Bulletin. Enquiries continue from a diverse range of sources with regard to how many clients the program can take and the geographical constraints on the program. That is, the program has had to turn down a number of referrals from places in Central

Queensland (e.g., Biloela, Gladstone, Emerald and Marmor) owing to lack of current capacity of therapists and sufficient funding only for Rockhampton-area services to be provided. With extra therapist capacity, we have now decided to move to a larger catchment area (Mt Larcom to the south; Yeppoon to the east). In the current short period in which referrals were again being accepted following bridging funding in 2011, following the earlier trend seen when the program first started and again after the first bridging funding, the program reached capacity within approximately one month with no more referrals then being able accepted due to insufficient capacity and uncertain long-term viability. Thus, it has become clear that – in consultation with families, police, Youth Justice and other service providers who lack capacity to work with these types of youth and their families in more intensive ways - this is a high demand program in Rockhampton and the larger Central Queensland area. We anticipate a similar situation with this round of funding, where we anticipate that the program's capacity will fill quickly, though it is also noted that many more families will now be able to benefit from this service with the addition of one more FT therapist.

Future Directions

This behavioural intervention program continues to show considerable promise and the additional funding which has enabled the program and its evaluation to be extended until April 2013. It is currently anticipated that the program will be extended for a further three years. Future directions for this program and future evaluation include the following: (1) collect more and varied data on outcomes (e.g., cost savings; assessment of outcomes in relation to delivery of the service through a usual service setting) and (2) evaluate organisational issues that will need to be considered when planning for larger-scale dissemination of this and other evidence-based services for conduct disordered youth and their families into usual service settings such as Youth Justice, Child and Mental Health services and other similar agency settings.

From this research, further insight is being gained into the extent to which this program improves behavioural, emotional, interpersonal and other outcomes for the families and their youth. This includes reductions in youth delinquency and offending, increases in prosocial behaviours, increases in parental monitoring and supervision, reduction in antisocial peer affiliation and improved parenting skills (including discipline strategies and increases in positive parent-child interaction). Coupled with this initial project, a follow-up study has the potential to provide the foundation for large-scale dissemination of the program that (1) can produce clinically significant outcomes, including preventing and reducing youth offending, (2) be done at a cost savings in relation to other programs for youth and (3) be successfully disseminated in a range of usual care settings, including the types of settings that research in the past has shown typically not capable of integrating and delivering innovative, evidence-based services for families and youth. Over the next several months, we will continue to gather additional data on the young persons and families who enter, participate in and complete the program. This will include additional reporting on pre-post outcomes up to 12 months after completion, youth emotional and behavioural functioning, offending behaviour, family functioning and evaluation of improvement in a range of parenting practices known to be linked to protective factors that reduce offending and prevent long-term antisocial outcomes for youth.