Fifth 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

An evaluation of the Behavioural Intervention program for youth with Conduct Disorder 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 initially for 12 months from September 2009 with additional funding provided from September 2010 - December 2011 and further funding provided from April 2012 to approximately October 2013.

The project, a randomized controlled trial (RCT), including an initial pilot study, has been operational for approximately 36 months, with a total of 109 referrals to the program and of that number, 39 families have either completed the program (*n = 25*), are currently receiving intervention (*n = 8*) or accepted and assigned to the Waitlist Control group who are not currently receiving intervention[1] (*n = 6*). Three additional families have received intervention but did not complete the program (*n = 3*) making a total of 42 families (*n = 42*) that have been accepted into the program. A further 13 families are yet to be assessed for program participation (*n = 13*).

Results to date are quite promising with families in the Treatment Condition typically indicating significant gains with regard to major outcomes and family goals targeting the young person's conduct disorder-related problems. Results are based on regular collection of data prior to and during the treatment delivery. By contrast, findings for the Waitlist Control condition generally show no improvement across the control period and, in some cases, deterioration. In addition to improvement on a range of instrumental outcomes for families as a function of treatment (e.g., family goals, parenting and family factors, young person behavior and peer affiliation), findings to date also support reduced criminality and delinquency as reported by (1)

[1] In this randomised controlled trial, waitlist participants are randomly assigned to a naturally occurring waitlist owing to the number of referrals. However, once they have come off the waitlist control period, they are then provided the intervention service.

official offending statistics, (2) parents and (3) the young person. Additionally, regular administration of another measure, the Session Rating Scale (SRS), indicates high levels of family satisfaction (average rating at completion of well over 9 on a 10 point scale). The SRS is completed by the parent with regard to how the program intervention overall is being conducted and permits the parent/s to indicate whether the needs and expectations of the family are being met. Use of this measure is linked to this intervention program's allegiance to the role of ongoing feedback from families to help improve services and enhance outcomes. Alongside this Interim Report, we also provide our pilot study manuscript which reports on findings from four families seen early in this project and speaks more about the role of feedback-informed services. That manuscript is currently being prepared for submission to a refereed, scholarly journal (*Behaviour Research and Therapy)* anticipated for Nov 2012. In addition to evaluation, we have a strong focus on increasing capacity in Central Queensland that will potentially increase the numbers of trained therapists both within our program and also within a variety of government and non-governmental (NGO) agencies in Rockhampton and CQ more generally. The next section provides more detail.

Recent Developments

Additional Bridging funding provided by the Department of Communities has permitted the extension of this project until October 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 continuity of the research project, including continuity in family-based services for young people with antisocial behavior. An ARC Linkage application submitted in May 2011 with the Department as the industry sponsor was unsuccessful. However, we have continued to develop and increase working relationships or partnerships in Rockhampton and surrounds including with Youth Justice Services, Department of

Disability & Community Care Services, Central Qld Child & Youth Mental Health Services, CQU Wellness Centre and Darumbal Community Services. As a result of therapist training conducted in February and June 2011 an additional 4 part-time (.2) therapists have now become actively involved in the program bringing the total of PT therapists to 6 (Youth Justice Services n = 2, Disability & Community Care Services n = 1, Evolve Therapeutic Services n = 1, CQU Masters of Clinical Psychology n = 2).

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. Professor Ronan is on the local Youth Justice Reference Group, which includes a number of agencies and local and state politicians. Media coverage, including newspaper and television, has been favourable and well received given the significant need recognised in the community for families with youth displaying antisocial behaviour. Part of the profile that this Behaviour Intervention program has in the community is perhaps one reason 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. Of course, another reason yet is the dearth of family-based services for this population of youth.

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 initial personnel selection and training completed in September 2009. Additional training was completed in February and June 2011 to increase the resource potential for more therapists; 13 participants have completed the week-long therapist training. Referrals to the program commenced in October 2009; 109 referrals have currently been made to the program. This intervention provides a service to both primary caregivers and youth through a systemic therapy approach that includes the use of a number of evidence-based interventions and techniques. Services are provided by trained qualified therapists, one of whom is funded by the Department of Communities grant and two therapists who work .2 FTE and are currently employed through the local Rockhampton Youth Justice office. Two therapists from the CQU Master of Clinical Psychology Program that Prof Ronan heads up allocate .2 of their time on a voluntary basis to see families. Finally, the other therapist on the team currently using .2 of her time from Disability Services to see families referred through Disability Services and who also meet research inclusionary criteria.

To summarise, the initial and ongoing funding provided through Department of Communities permitted a full time therapist to be employed, with another FT therapist added for 6 months in 2012. In addition, 2 Youth Justice (YJ) therapists presently allocate .2 of their time to program intervention, 1 therapist from Disability & Community Care Services allocates .2 and the two therapists from the CQU Clinical Psychology Program allocate .2 of their time on a voluntary basis, using the experience as part of their Master's training program increasing the capacity for program participation. Finally, Prof Ronan is currently seeing 2 families within the

program, picking up for the FT therapist who was here for 6 months and who is now away on extended leave. The additional funding from the Department of Communities has also assisted with the purchase of another vehicle for use by other therapists (inc., the FT therapist; inc., currently Prof Ronan who is seeing 2 families). Additional in-kind support from Youth Justice allows YJ vehicles to be used by YJ therapists when visiting the clients involved with the intervention. CQUniversity provided in-kind support 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. Currently, the Senior Therapist, FT on the program since its inception (and coauthor of this Interim Report) also serves as the evaluation's Project Manager, providing administrative support but also supervisory support for other therapists. 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. Other CQU Wellness Centre staff offer 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.

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 includes 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 (and Youth Justice) 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;

- 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.

Design

The time-frame for the initial study was 12 months however this has now been extended to Sept 2013. Thus, the plan is for a 5 year RCT, with 4 years, Sept 2009-Sept 2013, actively providing intervention for families within the program and with the final year, Sept 2013-Sept 2014, collecting 12 month follow-up data for families who finish the program in 2013. 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 has then been used for other referrals to the program subject to the provision that all available therapists were able to have clients. Thus, 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.

Results

Since October 2009, the program has accepted 42 families (*n = 42*) that represent current or finished Treatment cases (*n = 39*), non-completed (*n = 3*). Total Waitlist Control participants (*n = 19);* this WL group is comprised of completed *(n = 10),* currently in treatment *(n = 3)* and currently in the Waitlist condition *(n = 6)*. Given

the total number accepted (*n = 42*) and the current referrals to be assessed (*n = 13*), the anticipated numbers in each condition by the end of the active treatment phase (Sept 2013) look to be the following: Treatment (*n = 44-48*) and Waitlist (*n = 19-23*).

We have currently received 19 female and 90 male referrals (*M = 12.8yrs*) over the 36 month period this project has been operational. Of these referrals (*n = 109*), 25 families have been accepted and successfully completed the program. Participants that have completed all measures at the pre-treatment, post-treatment & post -12month FU phase (*n = 12*), participants that completed measures at pre & post treatment phase and are between the post-treatment & post-12 month FU phase (*n = 12*) and participants that completed the program but were unwilling to complete post-treatment measures (*n = 1*). There were also additional participants that did not complete the program and dropped out prematurely (*n = 3*); other than demographic information data for these participants is not included in the results. There are currently (*n = 8*) participants in treatment, (*n =6*) participants in the Waitlist condition and (*n =13*) referrals yet to be assessed. The remaining referrals (*n = 54*) have either not meet program criteria, declined the offer, have moved interstate, were referred to another more suitable agency or were not able to be contacted.

The inclusion in 2012 of another FT therapist for 6 months permitted the assessment and allocation of additional families to either the Treatment or Waitlist group under the next randomisation sequence. It was anticipated that as of April 2012 the number of families receiving treatment would increase from (*n = 10*) to approximately (*n = 17-20*) by July 2012; the current families receiving treatment or completed since April increased to (*n = 17*). In addition, Waitlist Control participants have also increased to *n = 7*. Thus the target for anticipated number of families participating in the program was attained. An additional (*n = 13*) referrals are waiting for assessment and will be allocated to either treatment or waitlist condition when the opportunity for participation is available.

Table 1 reveals current demographic information for program participants. The mean age of participants referred to the program is 12.7 years.

Demographic Information for Participants Accepted into Program (*n = 42*)

Age	8-9yrs	6	**Family**	Single Parent - Mum	22
	10-11yrs	2		Single Parent - Dad	6
	12-13yrs	17		Married	9
	14-15yrs	18		De-facto	2
Mean Age	**12.8**			In Care	3
Education	Primary	10	**Gender**	Male	34
	8-10 Secondary	31		Female	8
	11-12 Secondary	0	**Ethnicity**	Indigenous	12
	Home Schooled	1		Non-Indigenous	30

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). Of the 42 participants accepted into the program, *n = 3* families dropped out and *n =1* family that completed early and was satisfied with services was not willing to fill out additional measures, including the GTF completion and post-treatment measures. 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 = 12*) and those who have completed the 12 month FU phase (*n = 13*).

Families currently in treatment (*n = 8*) are comprised of; Treatment condition families (*n = 5*) and Waitlist condition families now receiving treatment (*n = 3*). Additionally, there are families in the Waitlist condition (*n = 6*) not currently receiving treatment (with anticipated finish of the WL condition for these 6 families being early in 2013, at which point these families will then commence treatment). Thus, the GTF data reported for those completed or in treatment is *n = 33*.

Figure 1 indicates the overall progress toward successful goal achievement at CP & 12 month FU across the circa 6 month intervention program with completed

cases (*n = 25*). This group is comprised of participants at 12m FU (*n = 13*), at 9m FU (*n = 2*), at 6m FU (*n = 1*), at 3m FU (*n = 5*), at 1m (*n = 3*) and at CP (n = 1). Progress from pre-treatment baselines (B1 to B3) 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 311% from GTF baseline phase (B1 = 1.8) to GTF completion phase (CP = 7.4). Goal 1 level of achievement improved further between the completion phase (CP = 7.4) &12 month post-treatment FU (12m = 8.2) indicating an overall improvement from B1 to 12m FU of approximately 355%. Goals 2 & 3 similarly improved over the 12 month post-treatment FU (Goal 2, CP - 7.0 to 7.9 at the 12m interval, Goal 3, CP - 7.4 to 7.9 at 12m FU). Overall average improvement across the 3 goals combined indicates a mean overall improvement of approximately 338% (Baseline -1.8 to 12 month FU - 8.0) for the level of Goal Achievement.

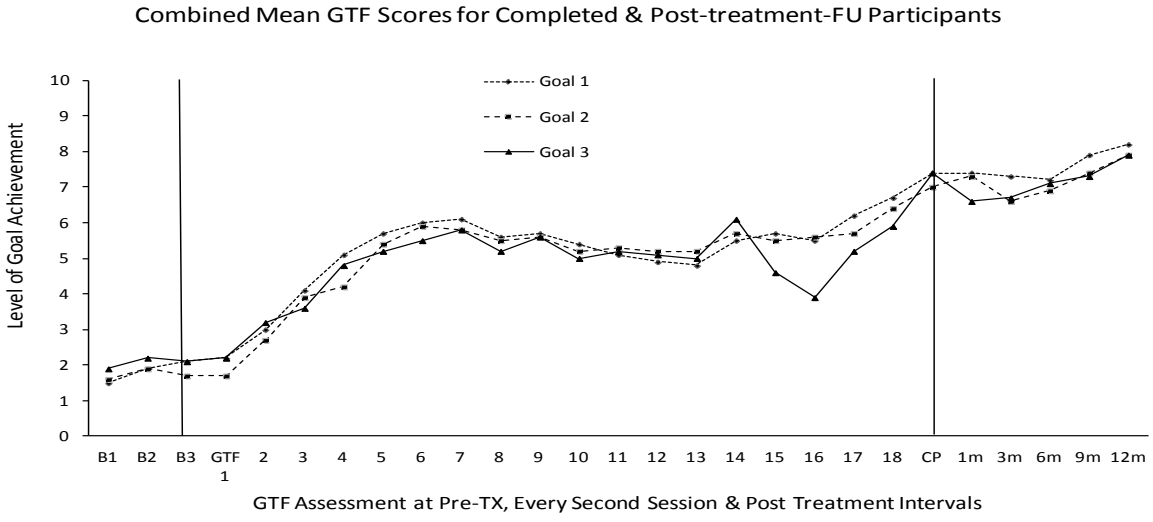

Figure 1. Combined Mean GTF Scores & Level of Achievement for Completed & 12 month FU Participant groups (*N = 25*) .

Note: B1 - B3 = 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 intervention (*n = 25*). These families are comprised of participants having completed at 12m FU (*n = 13*), at 9m FU (*n = 2*), at 6m FU (*n =*

2), at 3m FU (*n = 3*), at 1m (*n = 4*), and one family (n = 1) completed the program and while satisfied with the outcome did not complete the measures and therefore has not been included in the results (except for official offending outcomes as documented below – this young person was a YJ client with pre-existing offending but no offending following treatment). The average scores from Baseline to Completion Phase and at 1 month, 3 month, 6 month, 9 month & 12 month post-treatment intervals indicate that the trend overall is positive even when there are periods of relapse evident for some families. The 13 families who have now completed the 12 month post-treatment follow-up demonstrate stability and some slight improvement in positive behaviour for their young person over the 12 month follow-up phase. These data continue to support the evidence that families have acquired the skills to help the young person maintain improved positive behaviour post-treatment, including coping effectively with relapses long-term.

Combined Mean GTF Scores for Completed (*n = 12*) & Post 12m FU Participants (*n = 13*)

GTF	B1	B2	B3	GTF1	2	3	4	5	6	7	8
Goal1	1.5	1.9	2.1	2.2	3.0	4.1	5.1	5.7	6.0	6.1	5.6
Goal2	1.6	1.9	1.7	1.7	2.7	3.9	4.2	5.4	5.9	5.8	5.5
Goal3	1.9	2.0	2.1	2.2	3.2	3.6	4.8	5.2	5.5	5.8	5.2
GTF	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**CP**
Goal1	5.7	5.4	5.1	4.9	4.8	5.5	5.7	5.5	6.2	6.7	7.4
Goal2	5.6	5.2	5.3	5.2	5.2	5.6	5.5	5.6	5.7	6.4	7.0
Goal3	5.6	5.0	5.2	5.1	5.0	6.1	4.6	3.9	5.2	5.9	7.4
12M FU		**1 m**		**3 m**		**6 m**		**9 m**		**12 m**	
Goal1		7.4		7.3		7.2		7.9		8.2	
Goal2		7.3		6.6		6.9		7.4		7.9	
Goal3		6.6		6.7		7.1		7.3		7.9	

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 (*n = 33*) that have participated in the program and are currently either in the treatment phase (*n = 8*), have completed the treatment phase (*n = 12*) or completed post-treatment 12m FU (*n = 13*). Results indicate similar improvements to the the completed participant group (see figure 1 results) such that the overall trend remained in the positive direction with level of achievement improving as families near completion.

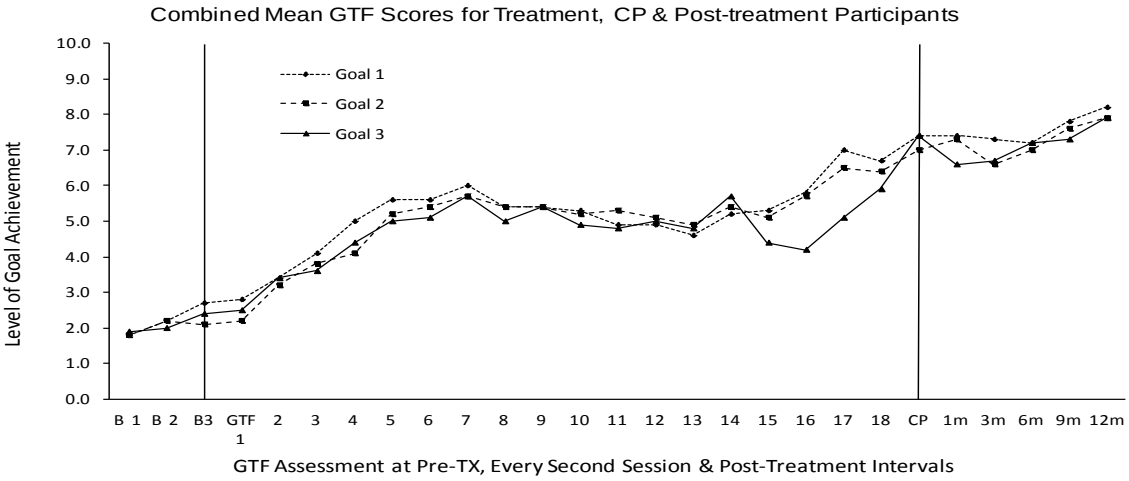

Figure 2. Combined Mean Goal Tracking Scores for Current, Completed & 12m FU Participant groups (*N = 33*).

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 = 25*) and participants currently receiving intervention (*n = 8*). Overall the results indicate a considerable improvement in the level of goal achievement for families from the baseline scores to the completion scores. Although relapse occurred for some families with GTF level of achievement dropping at various stages across all 3 goals the level of achievement continued to improve prior to and 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 GTF Scores for Current (*n = 8*) & Completed Participants (*n = 25*)

GTF	**B1**	**B2**	**B3**	**GTF1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Goal1	1.8	2.2	2.7	2.8	3.4	4.1	5.0	5.6	5.6	6.0	5.4
Goal2	1.8	2.2	2.1	2.2	3.2	3.8	4.1	5.2	5.4	5.7	5.4
Goal3	1.9	2.0	2.4	2.5	3.4	3.6	4.4	5.0	5.1	5.7	5.0
GTF	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**CP**
Goal1	5.4	5.3	4.9	4.9	4.6	5.2	5.3	5.8	7.0	6.7	7.4
Goal2	5.4	5.2	5.3	5.1	4.9	5.4	5.1	5.7	6.5	6.4	7.0
Goal3	5.4	4.9	4.8	5.0	4.8	5.7	4.4	4.2	5.1	5.9	7.4

Table 3 Combined Mean Goal Tracking Scores for Current (*n = 8*) and Completed (*n = 25*) 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 at the 12 month post-treatment (*n = 13*) or are between CP and the Post-treatment 12 month phase (*n =*

12). Results indicate that positive improvement in level of goal achievement occurred for all participants from baseline scores pre-treatment B1 to post-treatment CP & 12m FU and this positive trend continued for most participants even when some relapse periods were indicated. The number of booster sessions (*n = 9 x 1 hour*) requested by families supports the notion that overall families are equipped with the skills to maintain positive behaviour linked to the goals set by the family, albeit in some cases with a "top-up" booster session to help them deal with a lapse in the young person's behaviour. It should also be noted that one family did not complete the final GTF however all other measures had been completed.

Combined GTF Mean for Goals 1, 2 & 3 for Individual Participants in Post TX (*n = 25*)

Client	B1	CP	1m	3m	6m	9m	12m	Booster Sessions
002	1.8	6.7	5.7	4.0	5.7	6.5	8.3	1 x 1 hour
003	0.2	8.0	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	2.0	9.8	8.7	9.7	9.0	8.3	9.7	2 x 1 hour
017	2.7	3.7	5.7	8.2	4.7	6.8	8.7	0
019	1.7	7.0	n/a	n/a	n/a	n/a	n/a	
020	0.9	9.0	6.0	5.0	6.3	5.7	7.3	0
022	0.8	6.3	6.3	4.7	4.3	5.8	7.0	2 x 1 hour
026	1.1	8.5	7.8	8.0	6.7	7.5		0
028	0.7	7.7	8.3	8.3	7.7	7.3	7.7	0
030	3.1	8.8	7.2	4.0	4.3	7.2	6.8	0
031	2.3	6.7	6.7	5.3	7.3	7.8	6.0	0
032	2.7	7.3	4.8	6.2	6.8	7.7		0
033	3.3	9.3	9.3	9.7	8.8	9.3	9.3	1 x 1 hour
035	1.5	9.0	9.5	9.5	9.3	10.0	10.0	1 x 1 hour
036	1.5	8.0	8.5	7.0	7.7	7.0	7.5	2 x 1 hour
037	3.2	3.0	2.8	7.8				
039	6.0	6.7	7.0	5.0				
040	1.1	2.3	4.3	5.4				
043	2.3	8.0	7.7	7.3				
045	1.0	9.2	8.7	6.0				
047	1.0	8.5	9	6.7	8.0			
061	2.1	7.3	8.7					
076	0.9	3.9						
079	1.4	8.3	6.5					

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.

Figure 3 shows combined mean GTF scores for waitlist participants (*n = 19*) from baseline GTF (B1) to 12m FU; this group is comprised of completed *(n = 10),* currently in treatment *(n = 3)* and currently in the Waitlist condition with no intervention *(n = 6)*.The scores indicate that no improvement occurred overall for

participants in the Waitlist condition with a noticeable decline in behaviour toward the end of the waitlist period. This suggests that positive behaviour is unlikely to occur for participants in the waitlist condition, prior to the start of treatment. However, the results indicate that from when treatment began there was an overall positive improvement trend and although some relapse occurred between GTF 6 to 8 & again around GTF 15 improvement continued and increased in the 12 FU phase.

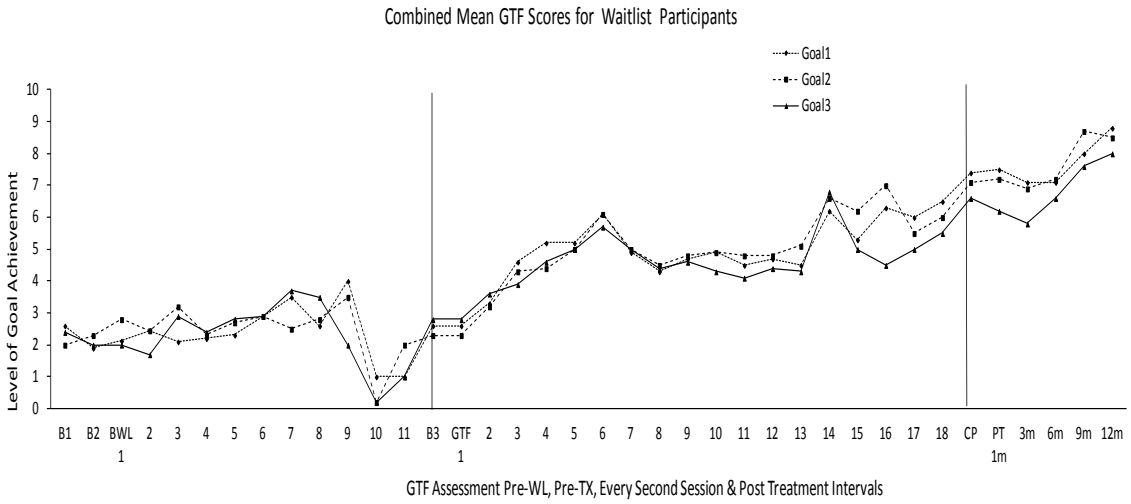

Figure 3. Combined Mean Goal Tracking scores for Waitlist participant groups during the Waitlist period, during Treatment and across 12 m Follow-up (N = 19).

Note: B1 - B2 = initial baseline GTF evaluations; BWL1 – 11 = evaluations completed every 2 weeks prior to inclusion in treatment condition, B3 = Baseline pre-treatment, 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 5-A shows the mean goal tracking baseline scores for the Waitlist group prior to inclusion in the treatment condition (*n = 19*). Mean scores for this group initially showed some slight improvement however indicate reductions (deterioration) overall in level of achievement for targeted behaviours from B1 to BWL11 for goal 1, 2 & 3 and only after treatment had begun were there noticeable improvements . Thus, overall the waitlist group revealed a fairly stable trend for the duration of the waitlist phase with 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 significant change.

Combined Mean GTF Baseline Scores for Waitlist Group during the Waitlist Condition prior to Treatment (*n = 19*)

GTF	B1	B2	BWL1	2	3	4	5	6	7	8	9	10	11
Goal 1	2.6	1.9	2.1	2.5	2.1	2.2	2.3	2.9	3.5	2.6	4	1	1
Goal 2	2.0	2.3	2.8	2.5	3.2	2.3	2.7	2.9	2.5	2.8	3.5	0.2	2
Goal 3	2.4	2.0	2.1	1.7	2.9	2.5	2.8	2.9	3.7	3.5	2	0.2	1

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

Table 5-B shows the combined mean goal tracking scores for the waitlist group from Baseline Pre-treatment to 12m FU (*n = 13*). Mean scores indicate positive improvement during treatment and in the post-treatment FU phase with significant improvement overall from baseline pre-treatment (B3) to post-treatment 12m FU. This waitlist group (*n = 13*) is comprised of (*n = 2*) at 12m FU, (*n = 2*) at 9m FU, (*n = 3*) at 6m FU, (*n = 3*) at 3m FU, (*n = 3*) in Treatment. The Waitlist group not receiving treatment (*n = 6*) is not included in these results.

Combined Mean GTF Baseline Scores Immediately Prior to Treatment (B1-B3) , During (GTF 1-18), Post (CP) & across 12m FU (1m – 12 m) for Waitlist Group

GTF	**B1**	**B2**	**B3**	**GTF1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Goal 1	2.6	1.9	2.6	2.6	3.2	4.6	5.2	5.2	6.1	4.9	4.3	4.7	4.9
Goal 2	2.0	2.3	2.3	2.3	3.2	4.3	4.4	5.0	6.1	5.0	4.5	4.8	4.9
Goal 3	2.4	2.0	2.8	2.8	3.6	3.9	4.6	5.0	5.7	5.0	4.4	4.6	4.3
GTF	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**CP**	**1m**	**3m**	**6m**	**9m**	**12m**
Goal 1	4.5	4.7	4.5	6.2	5.3	6.5	6.0	6.5	7.4	7.5	7.1	7.1	8.0	8.8
Goal 2	4.8	4.8	5.1	6.6	6.2	7.0	5.5	6.0	7.1	7.2	6.9	7.2	8.7	8.5
Goal 3	4.1	4.4	4.3	6.8	5.0	4.5	5.0	5.5	6.6	6.2	5.8	6.6	7.6	8.0

Table 5-B Combined Mean Goal Tracking Scores for Waitlist Group (*n = 13*) from Baseline Pre-treatment to Post-treatment 12 month FU.

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. Completed (*n* = *25*), Treatment (*n* = *8*).

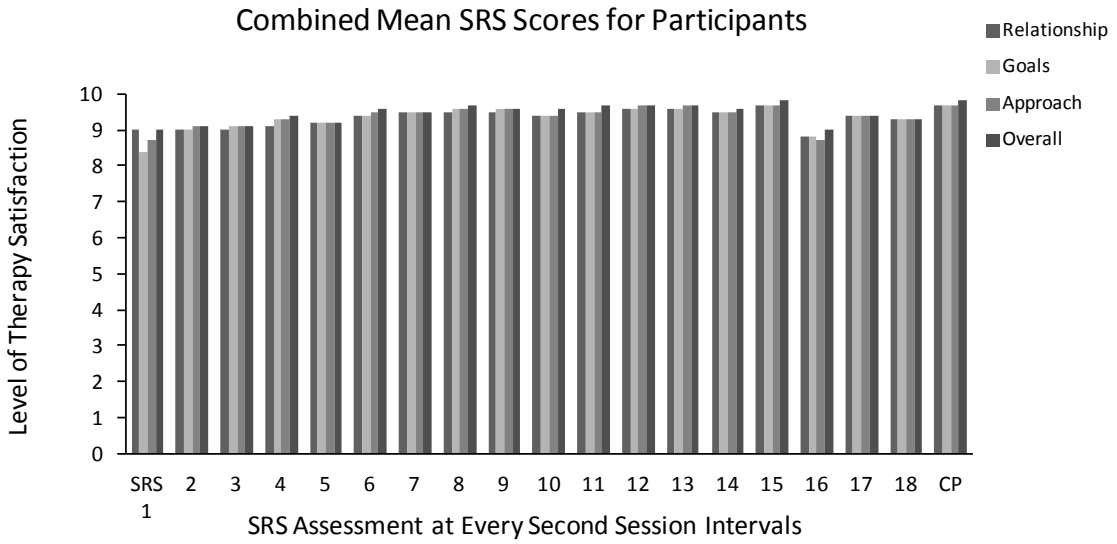

Figure 4. Combined Mean session rating scales for entire participant group (*n* = *33*).

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

Table 6 shows Parent- reported outcomes on the Delinquency Scale based on mean scores at treatment completion (Post-TX, *n* = *16*), for participants at 12 month post-treatment (refer table 8). 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', drug and alcohol and 'illegal'.

SRD - Youth Offending and Related Behaviour: Parent Report (*n = 16*)

SRD Subscales	Pre-TX (*n = 16*)	Post-TX (*n = 16*)	12m Post TX
Total offending	.48	.22	n/a
Norm violations	.46	.17	n/a
Interpersonal Aggression	.46	.16	n/a
Theft	.52	.25	n/a
Drug & Alcohol	.27	.19	n/a
Destructive vandalism	.46	.17	n/a
Illegal	.50	.27	n/a

Table 6 Parent-reported outcomes on Self-Reported Delinquency Scale (SRD) (*n = 16*).

Table 7 shows Youth-reported outcomes on the Self Reported Delinquency Scale based on mean scores at treatment completion (Post-TX, *n = 16*)[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 'drug & alcohol', in 'destructive vandalism', and a lesser reduction in "illegal." Furthermore, it needs to be noted that some youth did not complete the SRD scale for either the Pre-TX or Post-TX phase (*n = 9*) leaving valid participants (*n = 16*).

SRD Youth Offending and Related Behaviour: Youth Report (*n = 16*)

SRD Subscales	Pre-TX (*n = 16*)	Post-TX (*n = 16*)	12m Post TX
Total offending	.56	.23	n/a
Norm violations	.56	.21	n/a
Interpersonal Aggression	.47	.16	n/a
Theft	.54	.28	n/a
Drug & Alcohol	.48	.27	n/a
Destructive Vandalism	.57	.21	n/a
Illegal	.56	.26	n/a

Table 7 Youth-reported outcomes on Self Reported Delinquency Scale (*n = 16*).

Table 8 shows Parent- reported outcomes on the Delinquency Scale based on mean scores at 12 month Post-treatment (12m Post-TX, *n = 10*, *n = 4* did not fill out the SRD at 12m Post-TX and *n = 11* are yet to complete 12m Post-TX). The

[2] Nine youth refused to fill out the SRD at either pre-treatment or post-treatment.

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 'drug & alcohol', in 'destructive vandalism', and a reduction in drugs and alcohol however this increased slightly over the post 12 month interval.

SRD - Youth Offending and Related Behaviour: Parent Report (*n = 10*)

SRD Subscales	Pre-TX	Post-TX	12m Post TX
Total offending	.53	.13	.06
Norm violations	.50	.10	.07
Interpersonal Aggression	.57	.09	.08
Theft	.62	.19	.03
Drug & Alcohol	.20	.03	.09
Destructive vandalism	.51	.10	.04
Illegal	.54	.15	.06

Table 8 Parent-reported outcomes on Self-Reported Delinquency Scale (SRD) (*n = 10*).

Table 9 shows Youth-reported outcomes on the Self Reported Delinquency Scale based on mean scores at 12m post-treatment (12m Post-TX, *n = 10*)[3]. 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 'drug & alcohol', in 'destructive vandalism', and in "illegal." Furthermore, it needs to be noted that four youth did not complete the SRD scale for the 12 month post-treatment phase (12m Post-TX, *n = 4*) leaving the valid participants at *n = 10*.

SRD Youth Offending and Related Behaviour: Youth Report (*n = 10*)

SRD Subscales	Pre-TX	Post-TX	12m Post-TX
Total offending	.50	.21	.05
Norm violations	.52	.21	.05
Interpersonal Aggression	.43	.15	.03
Theft	.50	.24	.04
Drug & Alcohol	.34	.21	.06
Destructive Vandalism	.54	.18	.02
Illegal	.49	.20	.05

Table 9 Youth-reported outcomes on Self Reported Delinquency Scale (SRD) (*n = 10*).

[3] Four youth refused to fill out the SRD at 12 month Post-treatment.

Table 10 shows the comparison from pre-treatment to 12 month post-treatment parent report and youth report of the SRD for valid cases (*n = 10*) given some youth did not complete the SRD in the 12m Post-TX phase (*n = 4*).Youth generally reported less 'total Offending', 'norm violations', 'interpersonal aggression', 'theft' and 'destructive vandalism' in the pre-TX. Although youth reported a reduction overall for youth related offending from pre-TX to the post-TX, youth reported higher levels than parents across all items for the post-TX. These differences were not found in the 12m post-TX reports with parents and youth reports being similar or lower by youth than parents in the 12m post-TX.

SRD Pre & Post-treatment Comparison of Parent & Youth Reports (*n = 10*)

SRD Version	**Parent**	**Youth**	**Parent**	**Youth**	**Parent**	**Youth**
	Pre-TX	**Pre-TX**	**Post-TX**	**Post-TX**	**12m Post-TX**	**12m Post-TX**
Total offending	.52	.50	.13	.21	.06	.05
Norm violations	.50	.52	.10	.21	.06	.05
Interpersonal Aggression	.57	.43	.09	.15	.08	.03
Theft	.62	.50	.19	.24	.03	.04
Drug & Alcohol	.20	.34	.03	.21	.09	.06
Destructive Vandalism	.51	.54	.10	.18	.04	.02
Illegal	.54	.49	.15	.20	.06	.04

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

Offending data: from QPS and Youth Justice.

In terms of offending based on official offending statistics, the number of youth who have completed treatment, including the young person from the family that completed treatment without filling out additional evaluation measures (*n = 25*), *n = 7* had been arrested and charged with offences in the 6 months prior to beginning the program. Of these seven youth, *n = 5* had charges laid during the treatment phase of the program and *n = 3* of these five youth also had additional charges laid within the first 6 month post-treatment follow-up interval. However, no more charges were laid between the 6 month &12-month follow-up intervals, for any of the youth (*n =25*). No further charges have been laid for the participants who have completed the 12

month FU (*n = 14*) which includes n = 5 of the seven youth with offences prior, during or between post-treatment & 6 month FU interval.

Table 11 shows the offending frequency totals across 12 month prior to and during treatment and following treatment across these participants (*n = 7*) were as follows, representing a 75% decrease in offending through the follow-up interval:

Official Offending Rates

12 months before & during TX	12 months following TX
68 charges	17 charges*
4.9 charges/completed participant	1.2 charges/completed participant

Table 11. *These charges were for n = 3 youth and all were in the first 6-month FU interval. These youth didn't record any offences in the 6-12 month FU interval (see below).

As seen on Table 11, in terms of who of the 5 offended in what 6 monthly intervals, the frequencies are as follows:

Youth Offending from 12 m Pre-treatment to 12 m Post-treatment FU (*n = 7*).

6 m Pre-TX	During-TX	6 m Post-TX	6-12 m Post-TX
7	5	3	0

Table12 Total Number of Youth Offending from 6 months Pre-treatment to 12 months Post-treatment FU.

It is also worth noting that of all the families (*n = 42*) involved in treatment, only one family – one of the three families who dropped out prematurely and against therapist advice - had the young person go on to offend. It is worth noting that this offending started after the family dropped out of the program. It is also worth noting that this young person had no offence history prior to the program, though the parent self-referred initially owing to concerns about criminogenic risk (e.g., peer group affiliation; known incidents of antisocial behaviours that had not been yet spotted by the police). In fact, after the family dropped out of the program, this young person has had 4 separate offending incidents, starting 6 months (to the day) 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; breaking and entering (enter with intent) and unlawful entry and use of a vehicle).

For instrumental outcomes, Table 13 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. For example, as the parents *Poor Supervision & Monitoring* of youth decreased from 2.4 to 1.9 which reflected a positive improvement in appropriate supervision & monitoring of youth. Similarly, the decrease from 2.9 to 2.3 for *Inconsistent Discipline* factors reflects that parents overall were using a more consistent discipline approach with their youth. *Positive Parenting* factors increased from 3.7 to 4.1reflecting improved positive interaction and parenting skills. *Positive Family/Peer/Young Person* issues similarly improved from a low of 2.7 to 3.5. It should be noted that these result should continue to improve as similar to the n = 11 (refer Table 14) who have now finished 12m FU. The positive improvement across these factors is also reflected in the results for the GTF *Level of Achievement* where parents on average were able to attain the goals set for their youth.

APQ Parenting and Family Factors at Post-Treatment (*n = 25*)

Parenting Factors	Pre-TX	Post TX	12 month Post TX
Poor Supervision & Monitoring	2.4	1.9	n/a
Positive Parenting	3.7	4.1	n/a
Inconsistent Discipline	2.9	2.3	n/a
Positive Family/Peer/YP Issues (MBRS)	2.7	3.5	n/a

Table 13 Parenting Factors Measured on the APQ and the MBRS (*n = 25*).

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 = 11*)

Parenting Factors	Pre-TX	Post TX	12 m Post TX
Poor Supervision & Monitoring	2.4	1.9	1.9
Positive Parenting	3.6	4.2	4.1
Inconsistent Discipline	3.0	2.3	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 = 11*).

Waitlist Control Condition: Offending and Instrumental Outcomes

Table 15 shows the results for Pre-Waitlist & Post-Waitlist/Pre-Treatment Parent- reported outcomes on the Delinquency Scale for the waitlist group (*n = 13*). The results as reported by the parent indicate that overall no improvement occurred for families across the waitlist 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 = 13*)

SRD Subscales	Pre-WL	Post-WL / Pre-TX
Total offending	.43	.44
Norm violations	.35	.39
Interpersonal Aggression	.43	.41
Theft	.39	.33
Drug & Alcohol	.36	.53
Destructive vandalism	.36	.36
Illegal	.52	.50

Table 15 Parent-reported outcomes on Self-Reported Delinquency Scale (SRD) for Waitlist Group (*n = 13*).

Table 16 shows the comparison between Parent-reported and Youth-reported offending related behaviour. In general, the results indicate an increase in offending related behaviour of youth when in the waitlist condition and not receiving treatment.

The official offending statistics for the Waitlist Condition participants indicate that in the 6 months prior to participation in the Waitlist condition one youth (Youth A) committed 5 offences. During the Waitlist period and within 6 months prior to treatment Youth A was charged with an additional 11 offences and went on to commit another 8 offences during treatment and 4 offences within 6 months post treatment . Only 2 Waitlist Condition participants have completed 12 month FU and both these participants have no official offending history. Youth A has completed the 6 month post-treatment FU and is currenty between the 6 & 9 month interval.

SRD Pre & Post-WL / Pre-TX Comparison of Parent & Youth Reports (*n = 8*)

SRD Version	**Parent**	**Youth**	**Parent**	**Youth**
	Pre-WL	**Pre-WL**	**Post-WL, Pre-TX**	**Post-WL, Pre-TX**
Total offending	.46	.51	.50	.62
Norm violations	.37	.51	.41	.50
Interpersonal Aggression	.56	.52	.52	.56
Theft	.40	.41	.39	.61
Drug & Alcohol	.41	.45	.60	.70
Destructive Vandalism	.33	.53	.32	.52
Illegal	.55	.51	.57	.71

Table 16 Pre-Waitlist & Post-Waitlist/Pre-treatment SRD Parent & Youth Comparison for the Waitlist Condition Group (*n = 8*)

Table 17 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 = 13*)

Parenting Factors	Pre-WL	Post-WL Pre-TX
Poor Supervision & Monitoring	2.1	2.6
Positive Parenting	4.0	3.8
Inconsistent Discipline	2.8	3.0
Positive Family/Peer/YP Issues (MBRS)	2.3	2.3

Table 17 Parenting Factors Measured on the APQ and the MBRS for Waitlist (*n = 13*).

Additional Developments: Pilot Study Manuscript

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 have forwarded that manuscript along prior to submitting it for publication and are also submitting it again alongside this Interim Report. In addition, the full group comparison trial (i.e., the RCT) will also start to be written up in 2014 as final family participants finish the intervention. The manuscript itself will need to wait until all 12 month follow-up evaluations are completed in 2014. However, another manuscript that reports on the development of this program, summarises the intervention and the related program of research, is currently being written for submission to the peer reviewed journal, *Violence and Aggression*. Prior to submitting that manuscript, we'll run it by the Department first to ensure the Department is satisfied with the content.

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 in 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 behaviour. 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. Therapists involved in this program are committed and motivated with regard to providing a quality service to their clients and this is reflected in the SRS scores (i.e., Session Rating Scale that is filled out at the end of a session where family indicates if they were happy or not with the session). 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 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. In the current short period which referrals were again being accepted due to extra funding, the program again reached capacity within approximately one month with no more referrals currently being accepted due to insufficient capacity. As current therapists on the program currently have full caseloads, with a requested wait-list that we anticipate to increase, it seems to be that – in consultation with other service providers who lack capacity to work with these types of youth - this is a high demand program in Rockhampton and, quite probably, the larger Central Queensland area.

Future Directions

This behavioural intervention program continues to show considerable promise and the additional funding which enabled the program to be extended until September 2013 will potentially consolidate the effectiveness of the program. With continuing positive findings, future research would focus on (1) cost savings (2) assessing delivery of the service through a usual service setting (versus through a university evaluation program) and (3) organisational issues that will need to be accounted for when planning for larger-scale dissemination and implementation of this and other evidence-based services for conduct disordered youth and their families into usual service settings such as youth justice settings, child mental health services, child protective services and other similar agency settings in the government and NGO sectors.

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, further research 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 couple of years through the end of formal funding (Sept 13), and carrying on for another year of follow-up assessment, we will continue to gather additional data on the total of 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.