

Let's Start: Exploring Together

An early intervention program for Northern Territory children and families

Final evaluation report



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School for Social and Policy Research
Institute of Advanced Studies



Published by:

School for Social and Policy Research
Institute of Advanced Studies
Charles Darwin University
Casuarina 0909
Northern Territory, Australia
web: www.cdu.edu.au/sspr
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Citation. Robinson, G., Zubrick, S. R., Silburn, S., Tyler, W., Jones, Y., D'Aprano, A., McGuinness, K., Cubillo, C., Bell, M., Stock, C., 2009, 'Let's Start: Exploring Together. An early intervention program for Northern Territory children and families. Final evaluation report', Darwin: School for Social and Policy Research, Institute of Advanced Studies, Charles Darwin University.

ISBN: 978-0-9806800-1-0

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The program's development and delivery receives ongoing funding and support from the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs and the Cooperative Research Centre for Aboriginal Health.

The Evaluation is also supported by The NT Department of Education and Training (DET), the Department of Health and Families (DHF), and the Australian Research Council Linkages Grant Program which funds an evaluation of specific program outcomes.

Ethics approval by CDU Human Research Ethics Committee, no H05070.

Photographs provided by Let's Start team with written permission of participants.

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Acknowledgements

The Let's Start Team would like to thank the parents and children who have participated in the program; the teachers and school principals who have supported the project in many ways; senior managers and staff of NT DET and NT DHF; members of the Tiwi Land Council, Tiwi Health Service and Tiwi Education Board; the Cooperative Research Centre for Aboriginal Health; the Commonwealth Department of Families and Housing, Communities and Indigenous Affairs; past members of the Let's Start team who have substantially contributed to the program's set-up and delivery, Bonita Moss, Jakki McLean, Barbara Nasir, Michele McColm, Tanya Nichols, Mark West, Lee Robertson, Alexandra Jordan, Theresa Wilkins and Dr Carol Woolcock who provided expert training and advice. Tiwi team members include Roger Tipungwuti, Rebecca Papungamirri, Augusta Punguatji and Miriam Daniels and in the past, Theresia Portaminni, Michele Tipiloura and Mavis Kerinauia. Leonie Jones and Greg Minogue from NT DET's Top End Group Schools have provided strong support, as have Suzanne Brogan from Catholic Education NT, Leah Kerinauia, Principal of MCS School at Nguui and her staff, and staff of Jinarni Childcare Centre, Nguui. Lyn Reedman, Sally Johns, Terry Vertigan, Chris Featherstone and Lindsay Schinkel were strong supporters of the program and joined the team as group leaders for a number of school terms. Dr Terry Quong, Principal, Millner PS, assisted with set-up of pilots and contact with other principals in Darwin. Advice on database management and statistical analysis for earlier drafts of this report were provided by Dr Perry Morrison of Morrison Associates.

The Steering Committee for the Let's Start program as at October 2008 was:

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Ms Susan Bowden, NT DET
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Dr Adam Tomison, NT DHF
Ms Bronwyn Hendry, NT DHF
Ms Susan Brogan, Catholic Education NT

Executive Summary

The Let's Start project was a trial to implement the Exploring Together Preschool Program (ETPP) in the Northern Territory (NT) for Indigenous and other parents and children. The project commenced in 2004–2005 with funding under the Australian government's Stronger Families and Communities Strategy, in the Invest to Grow Program.¹ It was implemented in partnership with NT Departments of Health and Families (DHF) and Employment and Training (DET), including DET's Students' Services Division; schools in Darwin, Palmerston and Jabiru; and schools within DET's Top End Group Schools on Melville Island. Some non-government schools, most notably, Murrupurtiyanuwu Catholic School (MCS) at Nguu on Bathurst Island, were also important participants in the project.

The implementation of Let's Start necessitated the building of a service from the ground up and required the engagement of many practitioners, from principals, teachers and workers in childcare, to leaders of community organisations, health services and councils in both urban and remote settings. The program was delivered by a team of full time and part time personnel, at the university and in the Tiwi communities and including staff in other agencies who gave their time to Let's Start. Training was provided both in yearly major workshops, and on-the-job, under supervision of experienced team members.

The ETPP is a *manualised* program, and the program manual provided the template for maintaining program fidelity in training and delivery. In this report, *Exploring Together Preschool Program* or *ETPP* refer to the original program and the manual as used within the Let's Start project, while *Let's Start* refers to the implementation of ETPP in the NT, and the processes of engagement and methods developed to deliver it in the NT setting.

Children from four to six years old whose behaviour was a concern were referred to Let's Start by teachers or other practitioners or by family members themselves. Program duration was 10 weeks (including an introductory session and a concluding session, so that 8 weeks were dedicated to core program content) and the program was run over a school term to avoid disruption by holidays. Five to seven children participated in a program, each with a parent, attending one weekly two-hour group session in which the first hour was given over to parent-child interaction and the second hour to separate parents' and children's groups.

The ETPP was adapted to facilitate engagement of Indigenous parents and children in diverse contexts. Limited adaptation of program content was undertaken, to focus on developmental needs of Indigenous children and the concerns and understandings of their parents. The structure was flexible enough to allow for

¹ The Australian Government Department of Families, Housing, Community Services and Indigenous Affairs, FaHCSIA.

modifying content without abandoning the core focus of the three main intervention elements:

1. Parents and children guided in a program of constructive interaction.
2. Parents confidentially discussing strategies for managing their children's behaviour and conflicts and stresses within their families.
3. Children helped to develop social skills through facilitated play.

The program remained essentially the same in all contexts, but, importantly, was shown to provide a framework responsive to specific contexts and cultures.

Engagement, Context and Retention

By December 2008, the program had been delivered at over five sites in Darwin, Palmerston, at three communities of the Tiwi islands and at Jabiru, with 234 referrals received, predominantly from teachers in over 25 schools, with 110 children commencing attendance at the program (excluding pilots).

In these varied settings, different strategies of engagement were pursued. In Darwin and Palmerston it was found that the program could not be based at single schools nor focus on single Indigenous communities. Rather, in addition to targeted programs for 'fringe' settings such as the urban special lease communities, there was need for a general intake program for Aboriginal parents who wished to participate in a program with a mainstream feel, open to both Aboriginal and non-Aboriginal families. The general intake program was established to take referrals from numerous schools at any one time, with the program run in dedicated facilities at the Malak family centre in Darwin's northern suburbs and the Scallywags childcare centre at Moulden Park School in Palmerston. By contrast, in remote communities, all clients were Indigenous community members and the program was aligned with one community school (and preschool) in each community. Premises for delivery of the program were either at rooms provided by the school or at other settings, such as a women's centre, or a local childcare centre.

Table 1: Referrals by gender, Indigenous status and location, December 2008

Gender	N = 234				
Male	166	71%			
Female	68	29%			
Indigenous Status	N = 234		% of total referrals		
Total Indigenous	131	56%	Tiwi	82	35%
			Urban	49	21%
Non-Indigenous	103	44%			

Table 2: Commencements by gender, Indigenous status and location, December 2008

Gender	N = 110				
Male	75	68%			
Female	35	32%			
Indigenous Status			% of total commencing		
Total Indigenous	63	57%	Tiwi	49	45%
			Urban	14	13%
Non-Indigenous	47	43%			

Overall, around 50% of persons referred to the program participated in one or more sessions. Of these, around 60% were Indigenous parents and children. However, analysis indicated a lower rate of retention in the program for urban Indigenous parents than for non-Indigenous parents, in all forms of the program. Current analysis suggests that around 53% of Indigenous people commencing the program completed four sessions or more, that is, were exposed to 50% or more of possible program time.

Table 3: Completion of four or more sessions by Indigenous status, gender and location, December 2008

Gender	N = 87				
Male	60	69%			
Female	27	31%			
Indigenous Status			% of total completing		
Total Indigenous	46	53%	Tiwi	37	43%
			Urban	9	10%
Non-Indigenous	41	47%			

The participation of urban Indigenous people in the general intake program was around 27% of urban intake. This is a significant achievement if one considers that around 11% of the greater Darwin population is Indigenous (ABS, 2007). However, the urban Indigenous' lower rate of completion, together with the failure of some targeted urban Indigenous programs, mean substantial barriers remain (despite evidence of need and even expressed desire to participate) to achieving higher levels of uptake among sectors of the Indigenous community in arguably the greatest need in urban and major rural centres. Reduced retention and the consequent lesser exposure received by a significant number of participants undoubtedly set limits on the effectiveness of the program in supporting child development to the degree which might follow from full participation.

For the program as a whole, the level of recruitment and exposure achieved has been sufficient to lead to measurable benefits across a number of outcome domains. Any improvement in recruitment and retention beyond that achieved in this trial would increase the prospect of this early intervention program leading to improved outcomes for both parents and children. Improving program retention is a priority for future design.

These considerations are further explored in this summary and in the relevant sections of the report. Briefly, they include: (a) the desirability of linking targeted, referral-based strategies for Exploring Together or a comparable targeted program to population-based universal prevention activities and resources; (b) developing opportunities for program promotion and protocols for referral in a wider range of service settings where none currently exist (primary health care, schools, childcare and community services); (c) developing specific community-level partnerships with primary health care providers and community schools as a foundation for ongoing delivery; and (d) adjusting the program design with regard for the capacity of clients to participate.

Program Outcomes

The limitations of the evaluation research design, specifically, the absence of randomisation and control groups, mean that definitive attribution of outcomes was not possible. There was also a significant drop in participation from referral to program commencement and from commencement through to six-months' follow-up. This limited the sample available for repeated measures analysis. However, analysis of sample characteristics after attrition from referral to follow-up did not suggest that there were significant differences between those completing the study and those presenting at referral. It was noteworthy that the urban Indigenous sub-sample presented with highest numbers of problems recorded at referral, and was subject to the most severe attrition over the course of the study. The proportion of Indigenous participants in the total sample was maintained because of the higher rate of retention of Tiwi participants. There was a trend towards loss of children with more severe behaviour problems, which if anything means that outcomes may be understated by the analysis.

In general, both quantitative and qualitative analyses of responses to the program were positive, some strongly positive. These included statistically significant reductions in problem and risk behaviour among participating children according to multiple measures – the Strengths and Difficulties Questionnaire (SDQ), the Ngari-P, and according to teachers and parents. That is, the declines in problem behaviour occurred both at home and at school. Moderate effect sizes were registered at program end and substantially increased with moderate to large effect sizes at six-months' follow-up after program completion. The capacity of the program to support child development by promoting responsive parenting and increasing parental confidence was indicated by strongly significant reductions in parental distress as measured by the K6 instrument, with a large effect size.

There were indications of a *dose-response*, particularly strongly for parents' reports of children's behaviour using both Ngari-P and SDQ, according to which participants with better program attendance were more likely to show improved behaviour. In lieu of control groups this indicates that gains recorded may indeed be a treatment effect. There appeared to be differential effects according to gender and Indigenous status with particularly strong responses from Indigenous girls and

non-Indigenous boys. The reasons for these differences should be explored in further research.

Qualitative study supports assumptions about program change mechanisms in that benefits to children appear to flow from: (a) the experience of direct, responsive interaction with a parent (without competition for attention from siblings and others) in the interactive group sessions; (b) modelling of interactions with adults in a classroom-like situation; and (c) supervised play which facilitates self control in peer relationships. Further analysis of the profile of children's presenting problems may help illuminate how these possible change mechanisms work for specific groups of children.

Without pre-empting the results of further analysis, the differential outcomes for subgroups of children therefore suggest a need for both further research in key areas and revision of the intervention model. Research can help clarify questions of treatment effect, if it can be shown to what extent different outcomes are associated with different presenting profiles, or, conversely, whether there are different patterns of treatment response for the same presenting problem, and finally, how parenting styles are linked to problems of boys and girls in different cultural contexts.

There is thus more to be understood about the nature of specific behavioural problems and developmental difficulties for boys and girls and their relationship to patterns of separation, and to styles of parenting among persons from different cultural and social backgrounds. Such research should be coupled with investigation of program effects, for example, the effect of participation for Indigenous boys in a program mainly attended by mothers. Would the participation of fathers or male significant others produce a better outcome for some boys at this stage of their development, or is it most important to target the specific behavioural profile brought to the program by boys irrespective of the attending parent's gender?

Parenting

Reduction in parental psychological distress as measured by the K6 instrument was highly significant, with a very large effect size. Together with qualitative evidence this suggests that changes in parenting, parental confidence and wellbeing are behind the outcomes achieved by the Let's Start ETPP intervention model. Parents may benefit from the program in a number of ways: (a) reductions in anxiety overall, and in reactivity and/or withdrawal in response to difficult child behaviour; (b) increased confidence and assertiveness, both in terms of consistency of parenting strategies and in terms of managing household or family issues that impinge on parents and children; and (c) improved capacity to deal with personal, emotional or mental health issues.

Reductions in aversive parenting, improved reciprocal responsiveness between parent and child, and improved parental confidence or assertiveness may be particularly important where parent-child relationships have been damaged by separa-

tions or neglect, including fostering and out-of-home care. In a number of instances of single case analysis, the program appeared to have facilitated such relationship repair.

The benefits to parents appear to flow both from: (a) the experience of direct interaction with the child (without competition from other family members, siblings, etc) in the interactive group sessions; and (b) the reflective interactions of the parents' group leading to disclosures which give parents a feeling that they are 'not alone', and have the effect of reducing guilt and shame. The program's potential as an intervention to support improvements in parental mental health was evident in numerous cases. It is a service that has high acceptability for those parents who may have concerns about their children, but as yet limited awareness of their own personal need for support.

Transition to School

The improvements registered by teachers suggest that Let's Start can support the transition to school for many children. It has become clear that children in different settings encounter this transition quite differently. In the general urban community setting, in nuclear households of usually employed, literate parents, children's non-attendance at school was rarely an indicated issue. In the Darwin general intake program, the only children not to attend school were cases in which the parents were in effect withdrawing the child to meet their own emotional needs; this occurred in relation to cases of home schooling. But for those children with emotional or behavioural problems, parents and teachers confront the child's adverse reactions to school in the classroom or playground. A number of parents displayed acute distress over reports of their child's behaviour at school and the perceived pressure to respond to teachers' concerns. At the same time they often saw no connection between challenges in the child's behaviour at home and what teachers reported. They often saw no solutions to the problems on either side.

On the other hand, in remote communities like those of the Tiwi islands and in some urban fringe settings, school attendance is generally less coerced and less firmly supported by family routine and expectations. The child has the capacity to leave school and run away. Participating parents' response to the child's reactions (separation anxiety, non-compliance, shyness, school refusal, refusal to speak) was often to accede to the child's reluctance to attend. The child may go off with an older relative or follow their parent to the community shop and then follow other kin or be left at home with older children. In some cases, poor school attendance appeared to be a response either to the child's or to the parent's social-emotional difficulties, or a combination of both, which complicated the child's difficulties in making the transition to school. It was also more likely in family settings in which the parent relied on other family members in ways that allowed the child to avoid pressure to attend school, and gave parents the opportunity to withdraw from the challenge.

In a number of Indigenous community settings, principals and teachers interviewed were concerned to point out that the issues behind children's non-attendance at school would not be satisfactorily addressed by coercive school attendance strategies alone. They argued that there is a need for programs to help parents develop positive strategies to manage children's behaviour and deal with what they saw as antecedents to attendance problems and to the behavioural challenges arising in the classroom when non-attenders do come to school.

With the further development of responsive forms of delivery, it is suggested that a program like Let's Start ETPP can improve the capacity of parents to support children in negotiating the transition to school in both urban and remote settings.

Indigenous Engagement and Retention: Special Challenges for Program Adaptation

As indicated above, the program encountered barriers to effectiveness related to recruitment and retention of clients. In this regard, the main challenges for running the general intake program can be summarised as: (a) to adequately promote the program to wide numbers of parents; (b) to secure agency support and practitioner participation through strengthened links to universal services, with protocols developed in both education and health sectors to support assessment, referral, data-gathering and feedback; (c) to recruit and maintain a core delivery team with the requisite skills from community mental health, counselling, social work and early education able to work with Indigenous community workers; and (d) to improve program promotion and supports to secure higher levels of participation of Indigenous parents. Once achieved, there would be little need for further adaptation of the general intake model as trialled to date. It should be born in mind that at about 27% of total urban commencements, urban Indigenous participation in Let's Start ETPP was more than two times higher than the Indigenous proportion of the greater Darwin population, albeit subject to greater attrition. Indigenous participation can probably be maintained at 25–30% through the general intake, and would benefit from continuing work to sustain families in the program. This would be an important achievement if sustained and if retention can be improved.

However, it is in the more difficult to reach contexts, in many disadvantaged households both in and outside of the special lease communities, that the greatest barriers to indigenous participation lie. Barriers to uptake and retention in identified urban and remote Indigenous communities may be more difficult to overcome. Experience suggests that there may need to be further modification and targeting of intervention activity to take into account the capacity of parents and caregivers to participate. In urban fringe camps or special lease communities, and in remote communities, the process of engagement focused on the individual school as a source of referrals, but relied on direct and proactive engagement with parents in the community to gain and sustain their participation. This was relatively successful on the Tiwi islands and in recent pilots at Palumpa in the Daly River area. As with the general intake program in Darwin, parents in remote communities may not wish to join a targeted program at school, so that the option of locating delivery away from school needs to be considered from case to case.

However, in the special lease communities of Darwin's suburbs, such as Bagot community, Let's Start ETPP could not be successfully delivered, and the viability of a school withdrawal program is questionable. The stresses and tensions between and within families in these communities and the much greater opportunities for avoidance and flight mean that retention in any program is likely to be very difficult to achieve if it is at all possible. Appropriate alternatives to the current approach would seem to be to shift the program focus to bringing parents onto the school campus to participate in a modified program of activity with children – in class with teachers trained to participate as group leaders – with parenting discussions held separately. This would potentially free some parents motivated to attend from anxieties associated with attending a group under the eyes of other community members. Alternatively, a period of individual home visiting might be conducted before such parents are offered the opportunity to join a group program

Options to continue to improve uptake and retention include:

- further improvement of the cultural resonance or 'cultural fit' of the program with values and cultural understandings of the participants
- development of specific, locally informed or 'place-based' strategies to recruit and retain parents, based on stronger community-based resources
- adaption of the format of the model and the site of delivery
- further alignment with universal services to improve flow of information and professional support for participation and to increase referrals

Many of the families seen deal with multiple sources of stress and instability so that experience of attrition and even occasional breakdown of groups during a given term is to some extent the unavoidable price of providing any targeted program in Indigenous communities. There are almost certainly no adjustments that will overcome all such impediments to full participation.

Inputs and Sustainability of Urban and Remote Delivery

The Let's Start program was developed and run on the basis of the resources available to the Charles Darwin University (CDU) team through the primary grant and extension funding, with in kind contributions from CDU and partners. The most important direct input of the partners (DET, DHF, individual schools) took the form of active support of individual practitioners, teachers and early childhood professionals who at various times worked with the team in delivery of the program. The university-based team was supported by Tiwi community team members on a part time basis.

The program was primarily delivered by the Let's Start team, with irregular contributions from agency sources. Early childhood primary and preschool teachers provided referrals, with a small number of referrals from child protection personnel and some self-referrals from parents or grandparents. As described, the referral process was maintained by a cycle of continuing input of effort by the delivery team. Referrals by Family and Children's Services personnel remained low. How-

ever, some parents under welfare surveillance clearly benefited from participation. Mental health services, paediatric services and general health care services were not engaged during this phase of the program's development.

Agency participation through schools and health services did not reach the threshold for embedding the program's processes in practices of either department sufficiently to secure either a steady flow of referrals, or to free up practitioners to work as group leaders in program delivery on a regular and predictable basis.

With appropriate agency 'buy-in' across education, child health and child welfare sectors' processes of assessment and referral could be established to ensure a continuous flow of participants to the general intake program. Broader agency participation would also make a broader base of professional capability available within the intervention team.

The recent partnership with Danila Dilba, an Aboriginal Medical Service based in Darwin and Palmerston, has identified the lack of inquiry assessment and referral of child behavioural development and related parenting and family support issues in routine primary health care. This has been confirmed by other recent research on the delivery of child health care. A significant opportunity to develop guidelines and protocols for such processes thus exists.

Similarly, in education, there is both need and an opportunity to develop a routinely applicable model for assessment and referral of children from preschool through to grade 1, to be aligned with school responses to behavioural concerns. As in primary health care, a system of early behavioural or social-emotional assessments should be developed that schools can implement at preschool and transition-level intakes. A number of individual schools were able to do this, but not on a systematic or sustainable basis. It is striking and a matter for concern that this is not a role played by the Students' Services Division of NT DET. With NT DET's support, a standardised approach to assessment and referral could be widely adopted to benefit participation not only in Let's Start ETPP, but other relevant interventions to support social-emotional development during the transition to school.

Developing such mechanisms in health and education, drawing on national and international literature on best practice concerning behavioural screening and assessment, would provide a promising model for implementing Let's Start ETPP or similar programs on a sustainable basis, not only in major centres but also in remote communities of the NT.

Research Design and Program Development

The evaluation of Let's Start ETPP was limited by the inability to sustain the wait list controls intended in the original research design. This means that questions of program efficacy (and cost benefit/effectiveness) cannot yet be definitively answered, treatment-derived gains differentiated from general developmental matu-

ration of children, and specific treatment effects from other effects of program engagement. Despite these practical limitations, the research has provided extensive insight into critical processes of delivery, and frameworks for culturally and professionally competent engagement that must underpin future efforts to develop evidence of program effectiveness whether of the current program or an adapted format.

The analysis outlined here suggests that with attention to the modifications to improve efficiency of delivery and enhance client retention, a targeted prevention program can achieve sufficient referrals to be delivered sustainably and to a consistent high standard. It also suggests that this can and should be done in partnership with a research program aiming to test general effectiveness and to resolve questions about specific treatment mechanisms, outcomes of particular interventions strategies for both parents and children, the effects of particular program variations, and their effectiveness in various contexts of implementation. This approach would be developed in conjunction with establishing statistical controls using revised or additional measures of program outcome for both parents and children at home and at school.

It is feasible, based on identified need and on processes now well understood, for a program such as the Let's Start general intake model to be run on an ongoing basis with improved research design, if it can be satisfactorily resourced and supported. Alternative models are indicated for the Tiwi islands and some other Indigenous settings where the participation rates achieved in Let's Start ETPP strongly support the feasibility of the program. Modified approaches would strengthen the focus on parent-child interaction and on parenting, both separately and together using group work models with content similar to that of ETPP, but in altered configurations. It is in remote contexts that many important questions of parenting, child development and the effectiveness of interventions for Indigenous children and parents must be studied.

However, an overriding experience of Let's Start ETPP and its precursors is that community-based organisations and agencies do not have the professional resources or sustainable managerial focus to deliver targeted early intervention programs to high professional standards consistently over time. Many very powerful confounding influences challenge consistent processes of implementation over time; these are produced both by actions of organisations and service providers and within the communities themselves. This is of serious policy consequence for implementing integrated child and family support centres, now a central feature of Commonwealth and NT Government initiatives.

The models for delivery of such programs need to be developed in further partnership between the research sector and agencies working in collaboration both at the local and supra-local levels. Core professional, including clinical and evaluative resources, need to be built in a central parenting and prevention grouping that can provide training and setup advice, and ongoing clinical supervision of delivery to

remote service centres. The experience of Let's Start ETPP has provided considerable insight into how this can be achieved.

Recommendations for Future Program Design and Evaluation

The evidence supports the conclusion that a further extension of services such as those provided by the Let's Start ETPP is justified, based on levels of participation generated to date, needs expressed by parents and practitioners, and positive program outcomes. This should be done in the context of a strengthened program of research to evaluate outcomes, provide ongoing development support and increase Indigenous commencements, by developing evidence-based processes of assessment and referral that can be implemented as part of routine school and health centre business. However, for urban Indigenous communities and some remote contexts, issues of scale combined with reduced retention limiting effective exposure to treatment need to be taken into account by considering modified or alternative intervention models.

Our recommendations are that:

1. Charles Darwin University and Agency Partners work together to develop collaborative partnerships in prevention across health and education sectors aiming at improved alignment of targeted prevention activity with universal service provision in (a) routine child health care, and (b) a system of school-based social-emotional assessment at preschool and transition intakes.
2. Funded partnerships be established between the parenting and prevention research program, primary health care, early education providers and other community based providers, to secure ongoing implementation and evaluation of parenting-focused prevention and early intervention strategies in urban and remote contexts.
3. Agency Partners consider extending a general intake program (Darwin and other larger population centres) based on referral networks in early education, health and community services.
4. Promotional strategies targeting communities, families and practitioners to improve engagement and retention of parents in any further development of the Let's Start or similar programs, need to be adequately resourced.
5. Additional evaluation measures be adopted to test a wider range of child and parent outcomes and assist with developmental screening at referral, in future program evaluation.
6. A modified program on the Tiwi islands be further developed and evaluated, with consideration of its application to other remote contexts and growth towns.

7. Proposed variants of the program be consolidated, with appropriate resources, materials and protocols, that focus on (a) Indigenous parenting, (b) parent-child interaction, and (c) in-school models for extension to small remote communities and contexts of low parent-school engagement.
8. Variants of Let's Start ETPP be developed within a model for centralised provision of training, clinical supervision and evaluative support for delivery of preventive child and family support in under-resourced remote communities. This forms a relevant model for providing parenting services in integrated child and family support centres in NT growth towns.

1. Background

1.1 Brief History of the Let's Start Project

The Let's Start project received its initial impetus from an earlier attempt to implement the *Exploring Together Program* (ETP) on the Tiwi islands by the Tiwi Health Board. The Tiwi Health Board had been established in 1997 to implement the Tiwi Coordinated Care Trial (Robinson, 2001). It was a community-controlled agency responsible for the provision of primary health care and public health services to around 2,600 people of Tiwi descent, residents of the communities of Bathurst and Melville Islands in the Northern Territory of Australia. In addition to development of health care, the Board responded to a number of major public concerns. It facilitated a workshop which identified a 'Big Hit List' of intervention areas: these included concern about poor parenting and life skills among young parents, family breakdown and in particular the high incidence of suicide on the Tiwi islands (Davidson, 2003; Robinson, 2005).

The Board eventually chose to adopt the ETP – a targeted 10-week multi-group intervention for primary school-aged children with social-emotional and behavioural problems and their parents – as the central element of a preventive early intervention program for the Tiwi islands (Robinson & Tyler, 2006; Littlefield et al., 2000). This original project – called *Ngaripirliga'ajirri* – was implemented in a partnership between the Tiwi Health Board and a university research team, with participation of over 90 Tiwi Indigenous families, from 2000 to 2003 (Robinson & Tyler, 2008). It was superseded by a program targeting children from four to six years of age, based on the *Exploring Together Preschool Program* (Reid et al., 2008). Called *Let's Start: Exploring Together for Indigenous Preschools*, the program was based at the university, and expanded in scope to include communities in Darwin as well as the Tiwi communities. The shift in emphasis to younger children was thus partly funder-driven, in response to the opportunities of the Commonwealth's *Stronger Families and Communities Strategy* (SFCS) which targets the first five years of life. Initial funding was provided by the SFCS *Invest to Grow* program, which supplies funding for promising programs with potential for wider replication. This has since been augmented by funding from other sources, notably the Cooperative Research Centre for Aboriginal Health (CRCAH), and the NT Government Departments of Employment, Education and Training, (DET) and Health and Families (DHF). A research project funded by the Australian Research Council consists of an evaluation of specific components of the program in partnership with NT DET. From January to June 2008, additional funding for the program was granted by FaHCSIA as part of the NT Emergency Response (NTER) to enable expanded engagement of Indigenous families and communities. Both *Invest to Grow* and NTER program funding by FaHCSIA were extended until June 2009.

1.1.1 Evaluation of Exploring Together

The Exploring Together Program for primary school-aged children was developed in Melbourne in the 1990s. It is a 10-week targeted program for children from 6 to 12 years of age and their parents. It combines elements of well researched interventions targeting children's conduct and social skills, parent-child interaction therapy and parenting management training within a multi-group format of delivery (Kazdin, 1988; Kazdin, 1993; Barlow & Stewart-Brown, 2000; Webster-Stratton et al., 2001).

Exploring Together has been implemented across Australia in a range of settings. It has been evaluated both nationally and in local contexts (Littlefield et al., 2000; Hemphill & Littlefield, 2001). The Exploring Together Preschool Program is more recent. It targets three to six year old children and retains most of the key features of the original version, changing some elements of the format and content (Littlefield et al., 2005). It was recently evaluated with a sample of 37 children referred from clinical and community settings and was found to result in sustained improvements in children's social skills, reductions in problem behaviours and improvements in parenting practices, with high levels of reported parent satisfaction with the program (Reid et al., 2008). The program's format appears to have provided some barriers to randomised controlled research designs in program evaluation to date.

Many of the challenges of adapting the Exploring Together Program for the Tiwi context have been described in the evaluation of the precursor program, *Ngaripirliga'ajirri* (Robinson & Tyler, 2008; Robinson & Tyler, 2006). These refer to the incorporation of Tiwi community members into program delivery, the development of appropriate processes of engagement and the adaptation of content drawing on Tiwi language and on understanding of parenting styles, kinship and family organisation. Aspects of social difficulty affecting Indigenous families and children are important considerations (Robinson, 2005).

1.1.2 Stakeholders, Ethics and Approval

The program entails a substantial partnership with the NT Government Departments of Education and Training (DET) and Health and Families (DHF), who have provided both cash and in kind inputs to support the program. Catholic Education Office NT has been a major partner of the program. A Steering Committee has overseen the development of the program, and has been chaired by the Manager, Students Services, NT DET, with representatives from Catholic Education NT, NT DHF, and the Indigenous community. DET has provided both cash and in kind support to the program as Industry Partner of an ARC Linkages Project.

The NT Department of Health and Families (DHF) has provided both cash and in kind support to the Project. Dr Adam Tomison, then Acting Director of Family and Children's Services (FACS) had input into the exploration of the program's links with the child welfare sector as a member of the Steering Group.

The Let's Start team works both with schools and with the Students Services' Division of DET, which provides support to schools relating to children's special needs, behaviour management and student wellbeing. A number of Wellbeing Officers and Special Needs Teachers have participated in part time roles as Group Leaders along with occasional participation by early childhood teachers. On the Tiwi islands, the largest primary school, Murrupurtiyanuwu Catholic School, is located at Nguui on Bathurst Island, with smaller DET schools at Milikapiti and Pirlangimpi on Melville Island. All three have co-located preschools. Jinarni Childcare Center at Nguui, a 50-place childcare centre run by the Nguui Shire Council, has been an important partner of the program throughout and was the most recent site for program delivery at Nguui. In Darwin, Palmerston and Jabiru, around 40 schools have participated in the program, through referral of children and other activity.

Ethics approval was granted by the Charles Darwin University Human Research Ethics Committee, approval no: H05070.

2. Evaluation Framework

2.1 General Overview: Purpose and Scope of Let's Start Evaluation

Let's Start is the trial implementation of the Exploring Together Preschool Program (ETPP) in the three main communities of the Tiwi islands and in schools and communities in Darwin and Palmerston. The main elements of the intervention are outlined in the immediately following section. The existing ETPP (Littlefield et al., 2005; Reid et al., 2008) defines the core of the intervention, subject to adaptation for the context of the Northern Territory and specifically, its Indigenous communities. Major variations to the original project and its evaluation are indicated later in this section. A number of adaptations and modifications of the program are further described as *findings* in the relevant sections of this report. That is, a number of these adaptations and modifications reflect contributions to knowledge about appropriate forms of program delivery in various contexts and to that extent are findings of the *process* evaluation. A number of these findings concern the development of processes appropriate for specific community contexts such as the Tiwi islands, or in specific urban Aboriginal communities in Darwin and rural areas.

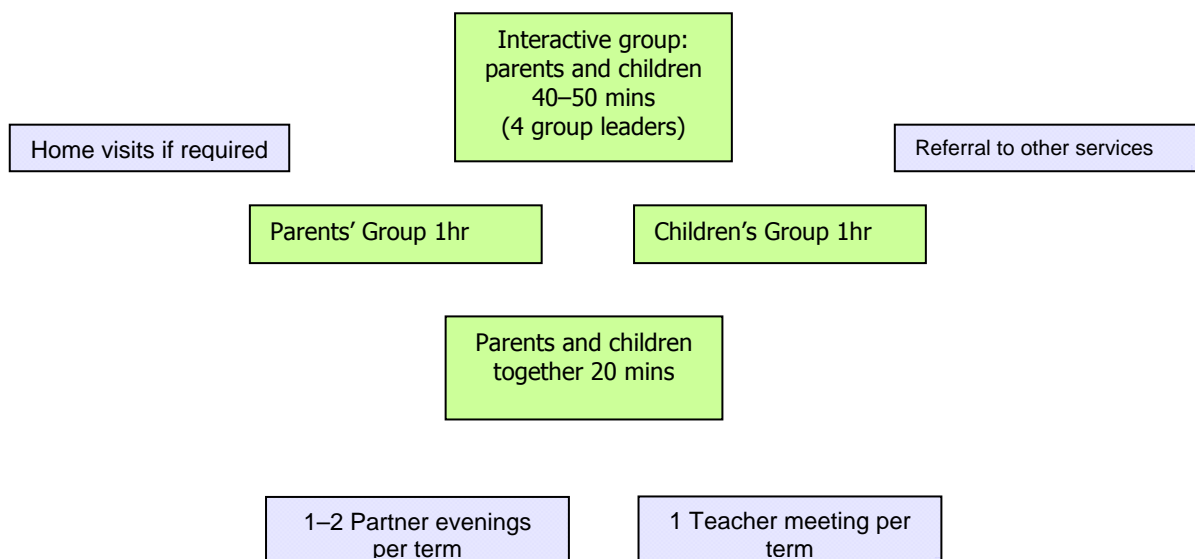
2.2 Program Logic and Project Design

The Lets Start program model has a number of key elements:

1. The Exploring Together Preschool Program Manual

The Exploring Together Preschool Program Manual (Littlefield, Story et al., 2005) is purchased from copyright holders for use by the Let's Start program. Information on the program is available at the Exploring Together website: <http://www.exploringtogether.com.au/html/preschool.html>.

Figure 1: Weekly multi-group format



The program runs for 10 weeks in a multi-group format which entails parenting management sessions with parents, parent-child interaction sessions with parents and children together, and children's social skills learning in a children's group.

Groups of around six children are selected to attend a program over a school term, each with one parent. Non-attending parents or carers attend two additional meetings with the attending parents during the course of the program.

The weekly sessions consist of two hours, with the first 40 to 50 minutes consisting of an *interactive group*, that is, group activity which includes each child and attending parent and all group leaders. At the end of the interactive group activity, participants split into two groups, parents only, and children only, each with two group leaders. Each group works through a structured program of activity, allowing for discussion, exploration of themes and disclosure of personal issues, (parents' group) and development of some strategies tailored for individual children and the dynamic of each group (children's group). The final 10 to 20 minutes is spent reuniting parents and children and completion of a morning tea, discussion of any homework set, following which parents and children depart for school, preschool or home.

2. Adaptation

Supplementary content has been developed for the program to render it more accessible to Aboriginal children and families in the NT. Further development and publication of material on recommended approaches and innovations with specific Aboriginal content is ongoing. This includes both Tiwi-specific material and other more generally applicable material for use by practitioners and community services and agencies.

3. Group leaders and training

Trained group leaders facilitate the program: two are designated to work in the parents' group and two in the children's group. The number of group leaders (usually four) has been increased, by including one male and one female Indigenous Tiwi group leader in most programs on the Tiwi islands.

Training and professional development was made available at major workshops once each year, with major workshops in 2006 and 2007 led by Dr Carol Woolcock, Exploring Together, Melbourne, each attended by over 30 persons. Workshops cover the theoretical rationale behind the intervention, processes of delivery, and skills associated with each of the three components of group work over 10 weeks. Smaller workshops for team members have been held twice per year. Where possible, workshop training is followed up by on-the-job training with experienced group leaders. Training targeted Indigenous and non-Indigenous staff within education and human services organisations, with preference given to staff able to contribute to program delivery from schools and partner agencies, such as DET's Students Services Branch or participating schools. The aim was to increase the pool of people trained in the specific Let's Start approach who can contribute

to ongoing delivery of the program, and to build capacity around childhood mental health, promotion, prevention and early intervention generally.

4. Referral and inclusion

Let's Start ETPP is a targeted early intervention program in which children are identified for participation by referral based on the judgment of practitioners about children's behaviour at school or in other settings. Early childhood school/preschool teachers are the main sources of referral to the program. Other referrals are made by child welfare officers of the Division of Family and Children's Services, NT DHF. A proportion of referrals are self-initiated by parents who contact the Let's Start team directly on provision of information to them by teachers, social workers or other agencies.

Before referrals are sought from teachers, workshops or meetings are normally conducted at schools to inform staff about the program's processes, about targeted behaviours and issues that may affect the participation of individual children and families. Grounds for exclusion are discussed. These are generally as set out in the ETPP manual, with allowance for context. They may include diagnosed developmental problems for which other treatments are indicated, significant health problems, including profound hearing loss, or major problems affecting parent or family, including current domestic violence, major ongoing disturbances to family stability derived from parent mental illness, alcoholism, unresolved spousal separation or other current difficulties of parents, unresolved child custody or responsibility for the child's ongoing care, unresolved child protection notification and so on. These issues may not always be fully evident at intake to enable adequate assessment. As teachers become experienced with the requirements of the program and understand reasons for referral and inclusion, less input is required of the Let's Start team and referrals can be more or less routinely provided to the team. Program information, referral forms and group selection matrix are in the appendices.

5. Engagement with schools

Schools have been contacted and provided with information about the program at meetings and workshops over the life of the project. In the first stages of the project, the Let's Start team initiated contact with parents after referral by school staff. As the number of participating schools has grown, the approach has been modified: school staff members act as the first point of contact with parents, providing general information about the program and recommending it to them for their child. Expression of interest by parents is then followed by contact with Let's Start team members.

6. Contact with parents

As indicated, many referrals occur after schools have provided initial information about program availability to parents and an indication of its appropriateness for their child. In some cases this first contact may be made by FACs personnel or personnel associated with other programs or services. Following this initial contact by schools or other providers, Let's Start team members contact parents, gain consents to participation, use of information, evaluation requirements and contact with

schools. They then administer demographic and baseline evaluation questionnaires. Agreements are made about which parent/caregiver will attend the program with the child and about program dates and times. Where appropriate, assistance is offered to help parents find suitable childcare (if siblings of referred child need care), transport to program, to provide information to employers, etcetera. Home visits are undertaken for these purposes and may occur subsequently where parents need further support or advice from the team. Wherever possible, the early contact with parents is made by those group leaders who will later run the groups which parents attend. The early development of rapport between group leaders and parents is a feature of the program.

7. Non-participating parents and family members

The program incorporates a minimum of one meeting for non-participating spouses or support persons. These are held in the evening and are an opportunity to inform spouses about the program and to engage them in the strategies being developed by their partners in the group work. Most participating parents are mothers, and the partner evening is especially important for engagement of non-attending fathers. On the Tiwi islands, the meeting with fathers and non-attending carers has generally been in the context of a lunch after program delivery at one or two points in the program.

8. Work with communities

Darwin and the Tiwi islands are very different contexts for the implementation of Let's Start. The operation of the program in Darwin must deal with the diversity of social contexts in which participants live, and develop appropriate strategies for engagement of specific communities. There are in effect three models for engagement:

(a) A mainstream or general intake model for the general community in Darwin: this takes referrals from all schools in the region and includes parents and children from all cultural backgrounds, including Indigenous parents; parents are approached through general promotion and advertising and through recommendation by schools and agencies.

(b) Indigenous communities in the Darwin urban and rural areas; to meet the diversity of living circumstances of Indigenous families in Darwin, the team has aimed to develop a model for work with *Indigenous clusters*. These clusters are groups of schools with high Indigenous enrolments that work together, pool resources and actively promote the program among Indigenous families. Parents are contacted in the first instance by principals and/or Aboriginal and Islander Education Workers (AIEWs). The Let's Start team members then contact parents who express interest in the program. They also attend promotional events at schools from time to time and engage in further planning with identified community members and organisations, as appropriate. Planning and consultation may involve identifying rooms for program delivery, and persons able to support the program, including those willing to undertake training to be group leaders. In practice the Indigenous cluster model has proven difficult to

sustain: the most promising model involves partnership with an Aboriginal Medical Service in Palmerston, whose personnel work with the university to deliver the program to cluster schools.

(c) The Tiwi program model which involves work with each school in each community in turn, alternating between referrals and delivery in each site, each school term and with a local team of Tiwi group leaders working with Darwin-based personnel in each community. The team has worked within rooms and facilities provided by the schools in each community, and has been able to draw on the contribution of AIEWs and Inclusion Support Assistants (ISAs) employed at the schools; they have worked part time with the team as group leaders and in provision of general assistance and liaison.

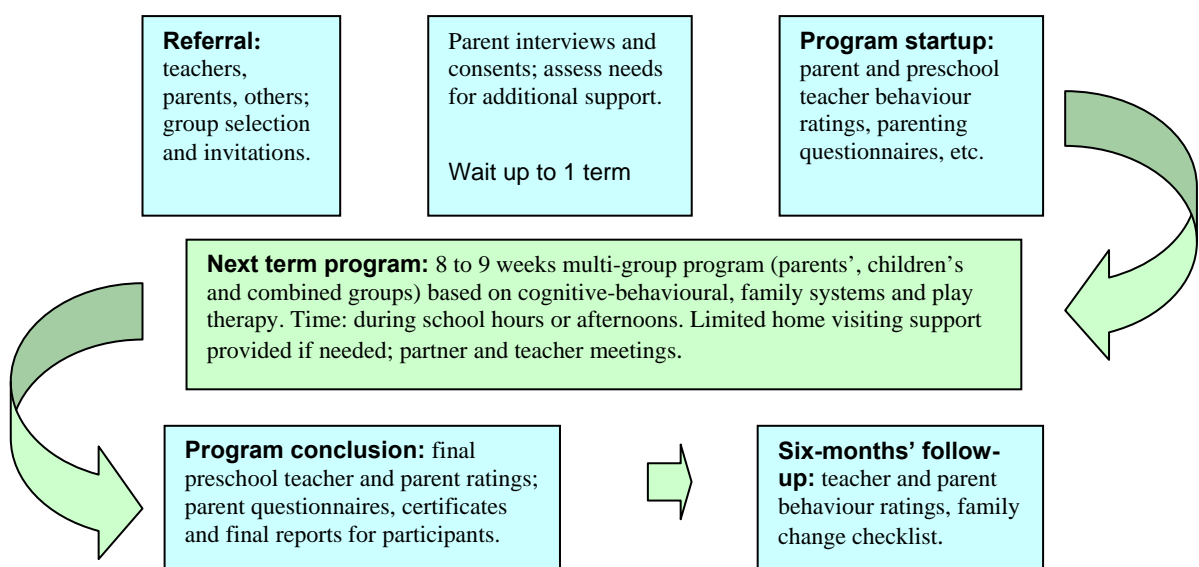
These distinct models of engagement have implications not only for the approach to program delivery, but for the potential sustainability of Let's Start ETPP beyond the present period.

9. Evaluation

Delivery of the program entails gathering data provided by teachers and parents at a number of points in time, beginning with referral and initial assessment interview. The instruments target child behaviour, parenting and parental wellbeing and are outlined elsewhere in this report. Beyond their use in evaluation, data-gathering and analysis are represented as integral components of the intervention for training and delivery purposes.

Figure 2 outlines the process of the program over time, commencing with referrals in a given school term, followed by a waiting period of varying length, and delivery of the program over eight to nine weeks of the following school term.

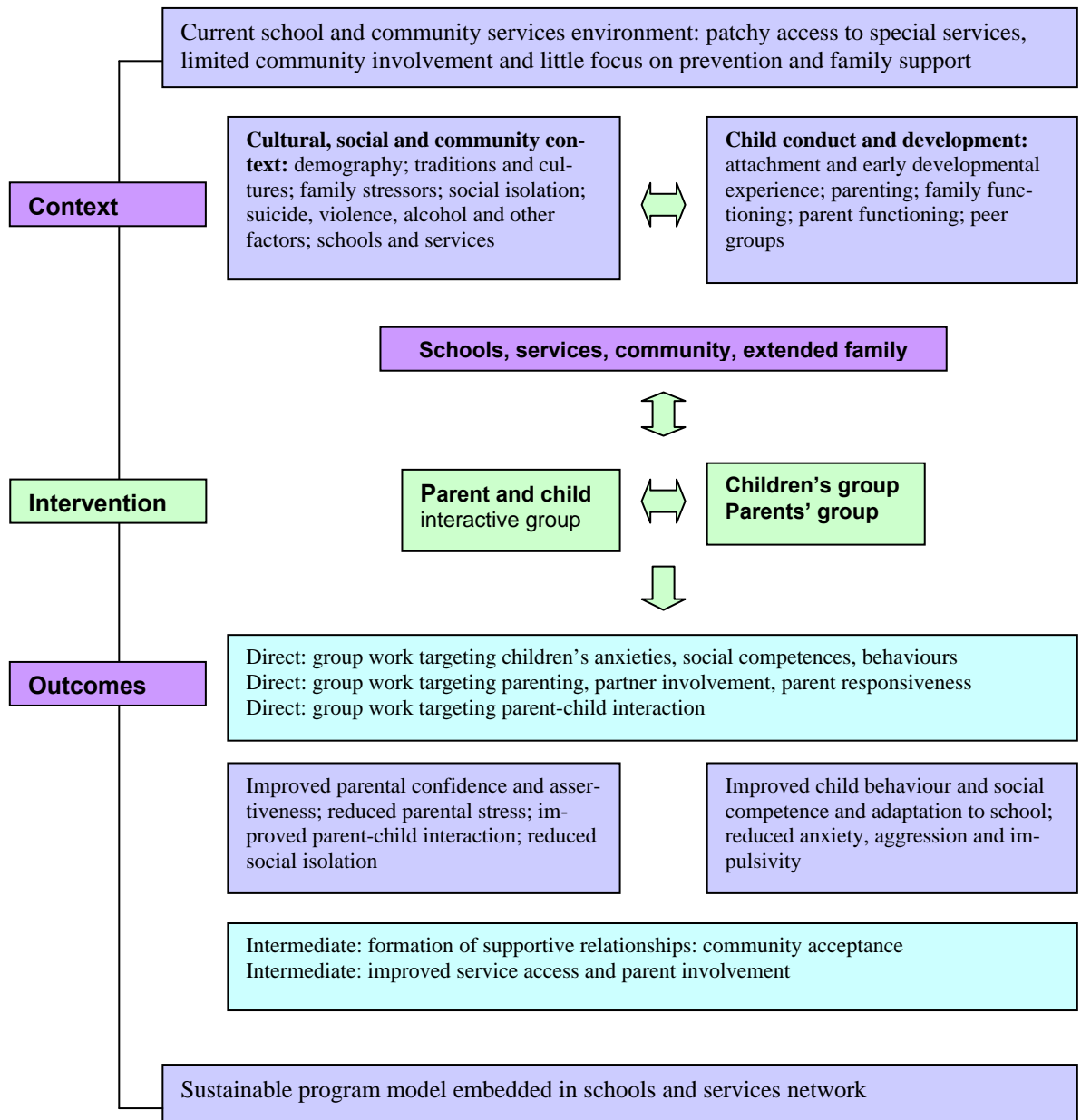
Figure 2: Program process



10. Location

In the Darwin area, the program is in most cases delivered at a site away from the school of participating children. On the Tiwi islands, the program is delivered at a location at or near the school attended by participating children, and group leaders usually take responsibility for returning children to class, unless parents volunteer to do so, or take preschool children home at program end. In 2008 at Nguiu, the program shifted to the premises of the local Jinarni Childcare Centre. This has had the clear benefit of enabling parents with small children to easily leave those children in supervised care while they attend the program with the referred child.

Figure 3: Program logic – context, intervention, outcomes



The outcomes of the Let's Start program must be understood not simply as the unmediated effect of a 'treatment' on subjects (the parents and children), but rather as a complex series of interactions (a) between intervention and context (Pawson & Tilley, 2000), and (b) internally, between participants (parents, children, group leaders). This interaction occurs through a number of processes, for example, training and development of the team is followed by engagement, in a given community context, with school staff and other service providers within the referral and program promotion network.

This is followed by the team's engagement with the parents who agree to participate in the program and follow-up. Contact with the family of participating parent and child and with the school context is maintained throughout the intervention period through partner evenings and teacher meetings. However, informally, the families of participants also interact with the program setting, in ways that are mediated by the participating parent and child who both directly and indirectly communicate reactions of other family members to the program.

Schools, services and the general community are part of the context in which the intervention takes place. The program's mediation between parent, child and school or service setting and its presence and promotion within a given community can also be considered components of the intervention activity. Thus while the intervention proper is centred on the structure of group work and direct outcome measures target the anticipated changes in parenting and child behaviour, it can be assumed that these interactions with context underpin the intervention's capacity to generate effects.

The direct outcomes which this evaluation project has sought to measure focus on parents' wellbeing and child behaviour (as reported by parents and by teachers). However, given the complexity of interactions between Let's Start ETPP and context, the potential change mechanisms it may set in motion are manifold and complex and vary considerably depending on the characteristics of individual participants and their circumstances. This question – the fundamental question of what constitutes the 'treatment' – will be further explored below, along with consideration of alternative strategies for measurement of outcomes that may be adopted in future research trials.

2.3 Program Development and Adaptation

The Let's Start program has generally adhered to the program manual and has maintained the core elements of the demanding multi-group structure of Exploring Together and its processes of delivery throughout. Stabilising the program against the tension between contextualisation and maintenance of fidelity or consistency of delivery over time, is an important challenge, given the variations in institutional resources and socio-cultural contexts described.

The challenge for Let's Start is twofold: on the one hand to establish processes of referral, engagement and implementation into existing activity of agencies and

schools, making it a part of their regular business; on the other, and of most concern, to achieve positive response from parents in the face of wide contextual variation across participating sites and communities. In these various contexts, there are substantial differences in school resources and service delivery arrangements and in access to them by both families and practitioners. There are variations in parenting styles and understandings across diverse social and cultural groupings, in family functioning and influences on child development, in the relative importance of literacy in child development, and in specific linguistic styles and cultural understandings. Apart from variation in context and in collective social and cultural patterns, there is significant variation between individuals: individual families of participants in terms of composition, relationships and experiences; and individual parents and children, in terms of developmental experience, disposition and conduct.

In Darwin, urban-dwelling Aboriginal children live in a range of circumstances. These include households in communities located in the suburbs and on the fringe of Darwin. These communities have diverse origins and distinctive populations. The largest is the Bagot Community with a population of 243 Indigenous persons in 2006 (ABS, 2006) and approximately 56 households (Stevens et al., 2002). Two small communities of Kululuk and Minmarama Park, with 20 and 26 households respectively (Stevens et al., 2002), are run by an association of Larrakeyah people, the original traditional owners of the Darwin area. These communities are all in the inner northern suburbs of Darwin. Another community, called Knuckey's Lagoon, was until the early 1980s a fringe camp in a patch of scrub on the outskirts of Darwin's northern suburbs, but is now a settlement of around 20 houses. These communities include many resident family groups who have lived in them for two or more generations. Many community members have ties to remote communities, include some relatively recent migrants to Darwin, and live in households with continuing flux of residents to and from these other communities. In all of them, parents are often unemployed and their families effectively cut off from access to many even basic services. Children from these communities attend a small number of suburban primary schools.

At the other end of the spectrum are found single and two-parent households led by literate, secondary educated parents who are more likely to be employed and have children attending school beyond school leaving age. They may include descendants of the original custodians of the Darwin region and nearby groups, or be descended from grandparents raised in missions in Darwin and other regions of the NT and beyond. There are significant differences in the functioning of these families, in the orientation to services and to school, compared with many, if not most families in both the discrete urban communities and the remote communities.

This diversity of contexts and family patterns is a challenge to (a) establishing organisational support and processes to sustain the intervention, both in schools; (b) engaging parents most of whom, despite referral, are not actively seeking a service and who are reluctant or unable to meet the demands of the program; and (c) mobilising communities in support of the program objectives. The objective is to create

meaningful patterns of engagement through services which are valuable to Aboriginal people and effective in dealing with sources of difficulty for parents and children.

2.3.1 Variations to Processes of the Let's Start Program in Response to Context

The original program delivery model contained objectives based on a number of unstated assumptions about program uptake and response. These were closely tested in the period between late 2005 and 2009, bringing about some variations to arrive at the three models of delivery described above. This did not lead to any major departures from the intervention itself. Their consequences have been largely confined to the pattern of recruitment of Indigenous persons, timelines affecting the research and evaluation program, and the ability to achieve the numbers of participants foreshadowed at commencement.

1. Program promotion and rate of referral

Throughout 2005 and much of 2006 referrals were received slowly in Darwin. This meant that the numbers of persons able to participate in the program to completion was less than anticipated for that period, and that waiting list controls could not be established. 2007 saw steady growth in referrals and demand for the program, to the point at which two programs per term could be run in Darwin and Palmerston, with Jabiru entering the program in late 2007.

2. Targeting by school or community

Initial expectations were that Indigenous participants could be recruited from specific schools and urban Aboriginal communities. However, the numbers of eligible children in each individual school is small and usually does not allow for selection of a group of Indigenous children from one school alone. Also in some schools, Indigenous children may live in diverse circumstances, for example, in urban communities on special Aboriginal leases, or suburban households. Many parents with higher levels of literacy, usually employed and with less direct connections to remote communities, expressed a desire to participate in a program with both Aboriginal and non-Aboriginal participants, rather than in one targeting Aboriginal people only. They tend to be more concerned about anonymity, whereas people from the small Indigenous communities typically preferred the support of others known to them from their own community as co-participants. At pilot, the team was unable to sustain a program consisting of Indigenous people from such different backgrounds and with such different preferences.

The above factors together led to the development of divergent strategies: (a) a general intake model, open to persons of all ethnic and social backgrounds, with wide promotion of the program in schools and agencies; and (b) targeted programs for specific Aboriginal client groups who are residents of urban communities. The latter requires direct engagement of community leaders and their schools to identify resources, sites for delivery, and participants, with both the school or schools and community leaders providing referral advice.

2.3.2 Content

The different intake models attempted to deal with issues of engagement and recruitment of parents from diverse circumstances and socio-cultural backgrounds. These led to some adaptations of program content, while retaining the basic structure of the manual and sequencing of themes in sessions.

The setting of weekly homework tasks for parents and children is a normal requirement of the ETTP. While this is retained in Let's Start, the results are variable, with many homework tasks barely completed at all. The number of written tasks has been reduced and some altered to make them easier for some parents and children to accomplish. On the Tiwi islands, a pre-session meeting was trialled the evening before the program session to enable parents and children to complete some tasks, discuss stories and chat about any relevant matters. This was irregularly attended and functioned best as an informal gathering. If attendance was overemphasised it meant some parents withdrew the following day, feeling they had 'done their bit'. The Tiwi 'homework group' has been discontinued in favour of alternative forms of support including some home visits and casual meetings in the community.

The interactive group sessions present challenges. Parents are often uncertain about their role. Songs familiar to parents and children, often songs sung at school, are used for warming up in the group. On the Tiwi islands, songs are sung in Tiwi language, with different favourites in the three communities. Other exercises involve group tasks which parents encourage their children to join in. Orchestration of activity by group leaders aims not to be at the expense of parents' engagement with their own child in activity, and in responding to inappropriate behaviour. The dyadic tasks set parents and children remain largely as in the manual with minor variants to reflect community context and expression of local themes and values.

Building dialogue with parents within the group is crucial to its effectiveness. The program begins with a focus on the individual child's behaviour. Abstract problematising of children's behaviour, which requires concepts of continuity of types of behaviour over time, is not easy for parents from many cultural and social backgrounds to achieve straight away. To explore links between the child's behaviour and parenting in the family setting, group leaders may encourage parents to draw household and family group relationships (including extended family members in other households) in a series of visual exercises, enabling parents to describe who the child is close to and which members of the extended group are commonly involved in typical behavioural scenarios – for example, the grandfather to whom the child turns when there is conflict with a parent or sibling, or to whom the parent turns in dealing with behaviour management challenges. This helps parents and group leaders develop a series of scenarios concerning child's behaviour and parents' responses to it for ongoing discussion.

2.4. Research Methodology

2.4.1 Lets Start: Action Research and Service Development

Developing effective early intervention approaches for the NT context requires establishing operational links with service providers to build a niche for the program within existing service provision networks. It also requires engaging clients, either directly, through program promotion and direct team contact, or indirectly through providers, community organisations and networks. Equally it requires some adapting of content and intervention processes to reach and engage Indigenous clients in the distinctive and diverse social and cultural settings of the NT. Part of the research focus is on the process of establishing and adapting the intervention in these terms.

The Let's Start implementation trial was funded by the Invest to Grow program within the Australian Government's Stronger Families and Communities Strategy, as a promising intervention to be developed and evaluated for possible further replication. It is a trial of the *effectiveness* of the intervention, rather than its *efficacy*. It aims to resolve many key questions about the process, necessary inputs, and most effective ways to engage with Indigenous and non-Indigenous parents and children in the NT. It examines questions of program fidelity against the demands of adaptation to the NT context, and evaluates program impacts and benefits for participants.

2.4.2 Primary Research Objectives

The objectives of the Let's Start Program are to:

- Develop and implement an appropriate model for intervention and therapy for Indigenous children of preschool age (four to six years) and their parents in childcare centres, preschools and schools with significant Indigenous enrolments in the NT.
- Develop and consolidate a treatment and training approach for Indigenous preschool parenting programs for wider use.
- Evaluate intervention outcomes in multiple sites, with follow-up.
- Contribute to the development of cross-culturally valid instruments and measures for a socially diverse Indigenous population. The primary outcomes measures are to focus on direct outcomes of the group work program: parent-child interaction, parenting, parental wellbeing and child behaviour.
- Test the sustainability of the intervention in varying service delivery configurations and social contexts.
- Develop and test mechanisms to support any wider expansion of the Let's Start program based on collaboration between community organisations and government departments responsible for health, community services, education and community development.

In reporting the outcomes of Let's Start, this evaluation addresses the feasibility of further replicating the program; its sustainability, including appropriate modifications of processes to support the service model; mechanisms of engagement and promotion; staffing and resources; and the demands of an ongoing research program to support high quality program outcomes.

As a program of action research, the methods and contextual adaptation of Exploring Together for the NT involve simultaneous development of process and content for urban remote Indigenous communities and for mainstream (that is, ethnically mixed) communities of Darwin, while maintaining program fidelity, that is, the consistent delivery of the core components of the intervention over time.

2.4.3 The Evaluation of Parenting and Parent-Child Interaction

In 2006, the Let's Start research team won an ARC Linkages grant to support the evaluation of the Let's Start program. This contributed directly to the research reported here. It also enabled the recruitment of a PhD candidate to undertake a specific area of evaluation activity, and supplemented the overall resources available to the evaluation team. Carmen Cubillo, MA Psych, commenced her candidature on August 31, 2006. The project is due for completion in August 2009. The focus of this project is the study of parenting and parent-child interaction as observed in the interactive group sessions of the program.

3. Findings: Quantitative Analysis of Outcomes

3.1 Introduction

This chapter reports results for the quantitative evaluation of the Let's Start program. These results are centred on short- and longer-term effects on changes in children's behaviour reported by their parents and teachers. We also describe the processes of referral, socio-demographic characteristics of referred and participating children, and the results of statistical tests of the effect of the program, taking into account these background characteristics.

3.1.1 Hypotheses and Plan of Chapter

The expectations of the intervention outcomes were formulated in terms of these hypotheses:

- 1. That average scores of parents' and teachers' assessments of the behaviours of participating children will show significant improvement between referral and program completion and that (a) any observed improvement will be positively related to levels of participation and attendance within the program ('dosage').*
- 2. That measured improvements in perceived children's behaviours will be maintained at the six-month follow-up assessment.*
- 3. That measured improvement in assessment scores will not be significantly affected by biases in sample composition due to differential rates of attendance and retention in the program.*
- 4. That variations in measured improvement in children's perceived behaviours will be influenced by socio-demographic factors and that (a) socio-demographic (and other covariate) influences on measured improvements will reflect unique combinations (interactions) across two or more values (e.g. male Indigenous, urban non-Indigenous).*

Since the evidence for testing these hypotheses is developed non-sequentially in the course of this chapter, they are revisited individually in the concluding section. The effects of biases due to differential rates of withdrawal and attendance by children from urban or non-urban settings appear in the description of the attending sample, while the effects of their location reappear in later analyses relating to Hypothesis 4.

It should be noted that, in the absence of a control group, differential levels of program exposure (dosage or attendance) assume greater importance for the estimation of program effect than in a research design which uses waiting list controls (Turner et al., 2007).

This chapter presents descriptive and analytical findings in the following sequence:

1. Referral, delivery and sample profile
2. Methodological design and estimation of program effectiveness
4. Children's behaviour problems and behaviour change
5. Explaining change: socio-demographic and participation effects
6. Hypotheses revisited
7. Conclusions

3.1.1 Referral to Let's Start

From 2006 to 2008, 234 children were referred to the program, with around the same number of referrals taken each year. Children were excluded from the program and/or evaluation study if:

- a major life event was anticipated that would interfere significantly with the ability to complete the program (a new baby or change of residence)
- there was serious ongoing family conflict
- the appropriate caregiver of the child was unable to attend the program
- the child had participated previously in Let's Start

Nine referrals were excluded due to missing data, reducing the final effective sample to $n = 225$.

The pattern of referrals by school term in 2006 and 2007 is broadly indicative of referral activity over the life of the project (Table 4).

Table 4: Number of referrals by year and term, 2006–2008

<i>Year</i>	<i>Term 1</i>	<i>Term 2</i>	<i>Term 3</i>	<i>Term 4</i>	<i>Total</i>
2006	24	16	19	14	73
2007	25	21	27	3	76
2008	28	17	11	17	73
Total	77	54	57	34	222*

*Note: 3 cases with missing referral date; final effective sample $n = 225$

Referral rates respond to levels of program promotion. Terms 1 and 3 attracted the most referrals (61.6% of total referrals for 2006 and 72.4% of total referrals for 2007). The high rate of referrals in Term 1 reflects the timing of the promotion of the Let's Start program in 2006 and 2007. Typically the school year commenced with a period of heavy program promotion. During Term 1, Let's Start project officers visited potential referral sources and convened Let's Start training events. During Term 2, Let's Start project officers were engaged in program delivery, each person often delivering multiple programs at different sites, so that promotion activity and the referral rate dropped, both rising again by the end of Term 2 and into Term 3.

During 2006 and 2007, 81.7% of referrals came from school staff as shown in Table 5. A smaller percentage were self-referrals (13.1%), commonly by parents who had learned of the program by word of mouth and approached the team, seeking help with their child's behaviour.

Table 5: Number of referrals by type of referrer, 2006–2007

<i>Referrer Type</i>	<i>n</i>	<i>%</i>
Teacher	88	57.5
Self (Parent)	20	13.1
Principal/Assistant Principal	19	12.4
AIEW*	10	6.5
Early Childhood Executive Teacher	7	4.6
Social/Case Worker	5	3.3
Childcare Worker/Manager	3	2.0
Special Ed. Teacher	1	0.7

*Aboriginal and Islander Education Worker

3.1.2 Program Delivery

After initial pilots, the program was delivered at two sites in Darwin, at Jabiru, and on a regular basis in two communities of the Tiwi islands.

Table 6: Program delivery by school term and location

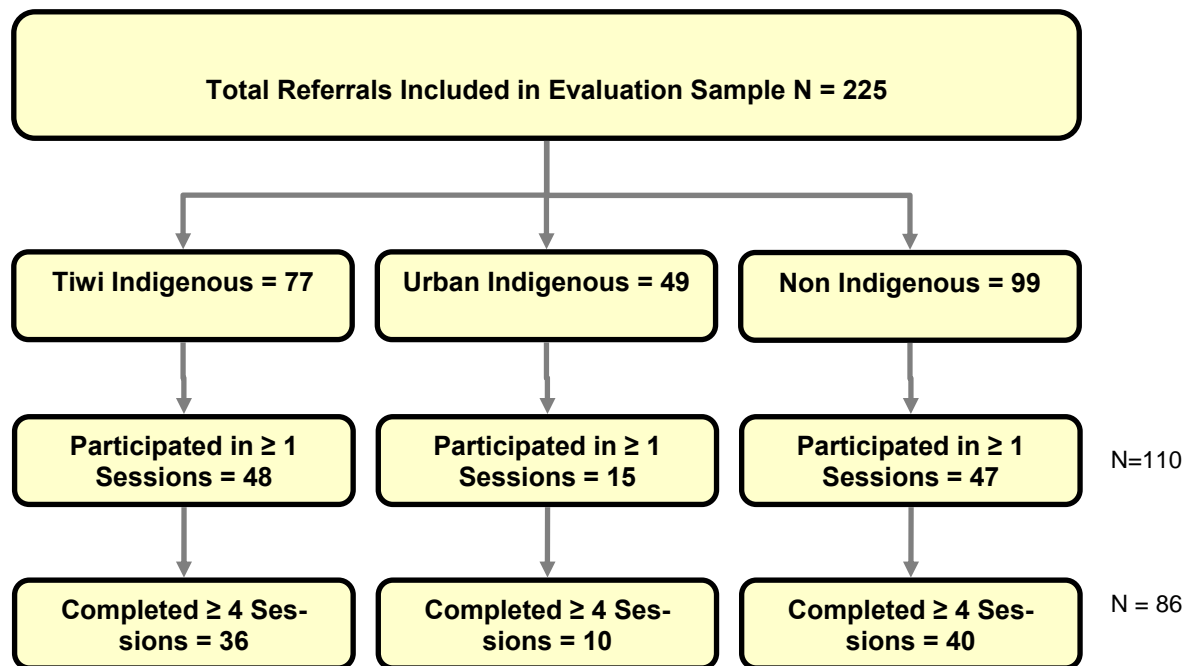
		<i>4/05</i>	<i>1/06</i>	<i>2/06</i>	<i>3/06</i>	<i>4/06</i>	<i>1/07</i>	<i>2/07</i>	<i>3/07</i>	<i>4/07</i>	<i>1/08</i>	<i>2/08</i>	<i>3/08</i>
Pirlangimpi*													
Nguiu	Pilot												
Milikapiti													
Malak	Pilot												
Palmerston													
Jabiru													
Palumpa**													

* First delivered Term 4, 2008. ** First delivered, Term 2, 2009.

Recent additional funding under the NT Emergency Response, and extension of Invest to Grow funding made it possible to deliver the program in additional sites. Programs were run for the first time at Pirlangimpi on Melville Island in Term 4 in 2008, and in 2009 at Palumpa, Daly River Shire, and at Danila Dilba Aboriginal Medical Service at Palmerston.

The treatment samples for this study, identifying Indigenous and non-Indigenous participation, are displayed in Figure 4, while weekly attendance patterns are shown in Figure 5.

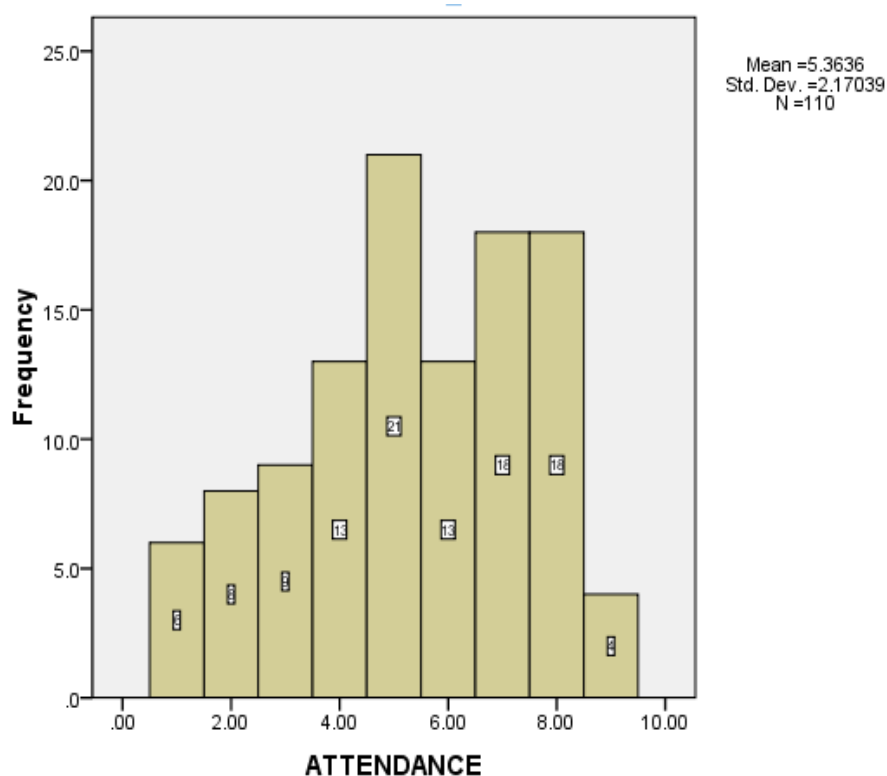
Figure 4: Referral and treatment samples by Indigenous status



As at December 2008, 234 children had been referred. A number of these were awaiting commencement in 2009, some were excluded on other grounds, and some had missing data at referral. Thus the final evaluation sample was 225 referrals. Of these, 110 children attended one session or more. Of the 115 who did not participate, the most frequent reasons cited were: timing of availability unable to start in 2008; reassessment of needs in the time between referral and opportunity to participate; family shifted residence and/or school during waiting period; change or uncertainty in arrangements for care of a child. Where information was provided, non-Indigenous families most often cited reassessment of needs during waiting time, or were lost to commencement due to movements of school and/or residence. The lowest uptake after referral was among urban Indigenous parents. They showed a marked pattern of week by week unavailability rather than shifts of residence or school.

The Tiwi islands had the highest uptake after referral, and despite the fact that temporary parent movement often affected attendance and completion, in fact the population is relatively stable and accessible to ongoing discussion about participation and attendance. This meant, for example, parental capacity to participate could be assessed and some ‘false starts’ avoided. When a false start occurred and a parent withdrew before attending, dialogue was sometimes restarted and a second commencement leading to completion occurred. For the purposes of this analysis, in such cases, first referral information was taken as the baseline score and the instance of non-uptake was not counted.

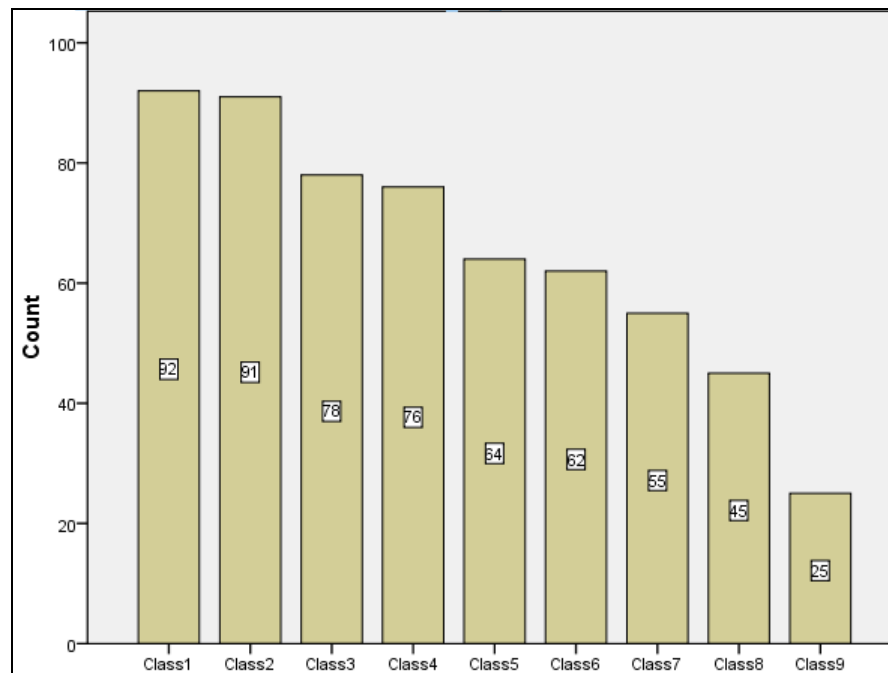
Figure 5: Numbers attending by number of weekly sessions attended



Eighty-seven children (67% of those ever attending) completed 50% (4) or more of possible sessions (Figures 5 and 6). Twenty-one children attended 100% of sessions. (Because the program consisted of 8 sessions with a concluding parent interview session, the end category shows four children attending this final session, hence the labelling of 113% or 1.13.) For all children, the mean number of sessions attended was 5.33 out of a possible 8.

Earlier sessions were more often attended, as Figure 6 shows. There is a noticeable decline in raw attendance over the full 9 sessions (including ninth follow-up and feedback interview session). The decline in attendance varied somewhat between urban Indigenous and other groups, as indicated below.

Figure 6: Total attendance each week of program



3.1.3 Sample Profile: An Overview

The following sections examine the sample compositions at various stages of the program in exhaustive detail. A comparison of the profiles of the referred and attending samples at this stage is instructive (Table 7).

The profile of referred children for this evaluation was:

- 225 children referred
- 110 (49%) attended at least one session; 115 (51%) attended none
- mean age 5.0 years
- 156 (69%) male; 69 (31%) female
- 126 (56%) Indigenous; 99 (44%) non-Indigenous
- 77 (34%) Tiwi Indigenous
- 49 (22%) town-based Indigenous (all non-Tiwi) children²

When the profiles of attending and non-attending samples are compared, the means for the socio-demographic variables (age, gender and Indigenous Status) are almost identical. The exception here is the over-representation of the Tiwi Indigenous subsample among attenders.

² Figures do not sum to 100% due to overlap of categories.

Table 7: Descriptive statistics* of total referred and total attending samples

<i>Sample Characteristic</i>	<i>Sample Attending One or More Sessions (n = 110)</i>				<i>Sample Not Attending any Session (n = 115)</i>				<i>Total Referral Sample (n = 225)</i>			
	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>S.E. Mean</i>	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>S.E. Mean</i>	<i>N</i>	<i>Mean</i>	<i>S.D.</i>	<i>S.E. Mean</i>
Male Gender	110	0.67	0.47	0.04	115	0.71	0.04	0.45	225	0.69	0.46	0.03
Age (yrs)	110	5.01	0.92	0.09	112	5.00	0.10	1.07	222	5	1	0.07
Age 3–5 yrs	110	0.68	0.47	0.04	112	0.67	0.04	0.47	222	0.68	0.47	0.03
Attended 1+		n/a			115		n/a		225	0.49	0.03	0.5
Attended 50%	110	0.79	0.41	0.04	115		n/a		225	0.39	0.49	0.03
Prop. attended	110	0.67	0.27	0.03	115		n/a		225	0.33	0.03	0.39
Indigenous	110	0.57	0.5	0.05	115	0.55	0.05	0.50	225	0.56	0.5	0.03
Tiwi Indig.	110	0.44	0.5	0.05	115	0.25	0.04	0.44	225	0.34	0.48	0.03
Valid N listwise	110				112				222			

*Means for dichotomous variables are expressed in decimal form
e.g. Indigenous Mean .56 = Indigenous are 56% of total sample.

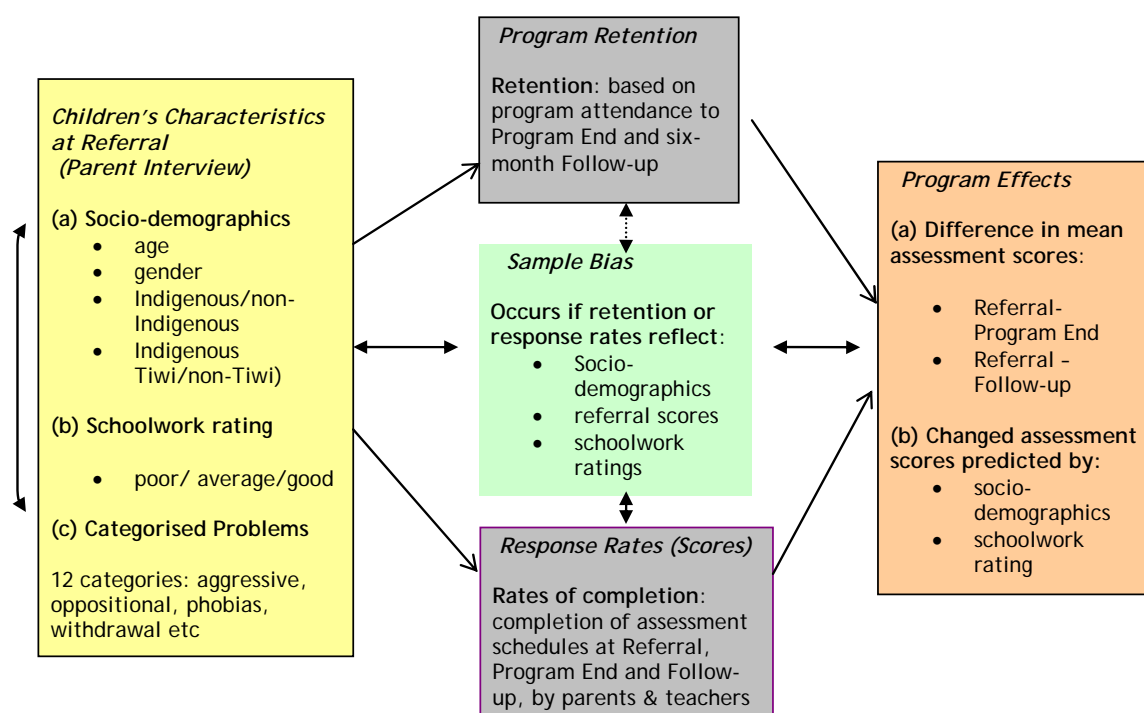
The effects of the loss in minimal attendance and of later attrition to follow-up across all stages of the assessment regime is explored in detail in the next section.

3.2 Methodological Design and Estimation of Program Effectiveness

Funding and implementation constraints imposed a simple pre- post-test design without a control group and with accidental sampling. The resultant design is thus a quasi-experimental observational one aimed at assessing program delivery parameters, effectiveness issues, and with the capacity to observe reported pre- and post-test variation.

Of particular interest are: (a) the general representativeness of the participating dyads with reference to the total sample; (b) the suitability and feasibility of gathering structured questionnaire data from these participants, and (c) their attrition characteristics. While no definitive assessment can be made of program efficacy, the variation in program response to individuals' participation in the program (i.e. the 'dosage' to which participants were exposed) is an important indicator of program effect.

Figure 7: Exploring program effects – an analytical framework



This framework represents the flow of effect between children's characteristics and the measures of behavioural change as mediated by features of the intervention itself. Differential rates of attrition on the composition of the final or evaluation samples at either program end or at follow-up have a possible distorting effect. If, for example, there was a tendency for attrition to result in the over-representation of certain groupings (socio-demographic, schoolwork or behavioural groupings) compared with proportions with these characteristics in the referral sample, any observed changes would tend to either under- or overestimate program effect. Along with the non-random design, this interaction between characteristics of the referral sample and the mechanics of program delivery can limit the interpretation of observed changes for policy purposes. For this reason, the analytical design takes into account sample bias as a result of attrition by way of an exhaustive comparison of sample characteristics at each time point, before proceeding to the statistical analysis of measured changes in children's behaviour.

3.2.1 Formal Instruments and Questionnaire Administration

The following are descriptions of the instruments administered during program delivery. They include the referral template for persons referring children to the program, the demographic information and parents' interview questionnaire and outcomes measures. The outcomes measures are based on perceptual or attitudinal inventories of two types: (a) child behaviour and adjustment measures adminis-

tered to both parents and teachers at referral, program end and follow-up (the principal evaluation instruments); and (b) a parental mental state inventory (K6), administered to parents only at referral and program end. Copies of all instruments are in the appendices.

Referral template

Referral information is provided by teachers, child welfare workers and others. A standard form gathers information on the child, parents/carers and referral reasons. It includes a 12-item list of presenting problems of the referred child and open-ended responses concerning parent or child difficulties.

Demographic and developmental data and family functioning

The *Demographic Information and Parent Interview Questionnaire* administered at first contact with parents, has these functions:

- to gather written parental consent to participation and release of data
- qualitative data relevant to assessing needs and issues affecting individual children and parents
- demographic information on current caregivers and referred child: age, gender of child and carers, marital and employment status, education, etc.; specific cultural or social affiliations
- developmental history, child's development from birth, early separation, health problems and special needs
- current household composition
- current life stressors related to family and its context, including risk behaviours among household members and specific stressors to which the child has been exposed.

The Family Functioning and Life Stress component of the questionnaire was administered twice – at referral/baseline and at six-months' follow-up. At program completion, The Parent Satisfaction Questionnaire is administered. The PSQ is a standard instrument developed for the Exploring Together Program (Littlefield et al., 2005) and is reported in Chapter 4.

Child behaviour and adjustment measures

1. Ngari-P, parent and teacher ratings of child behaviour

The Ngari-P is a measure of children's behaviour, developed during the earlier trial of Exploring Together on the Tiwi islands after a review of existing instruments (Robinson & Tyler, 2006). Separate versions are administered to parents and teachers along with the SDQ at referral and/or commencement, program end and six-months' follow-up. Because the Ngari-P scale is not normed for a reference population, it is not possible to comment on the clinical value of the mean scores.

This behaviour measure (43 items, teacher scale; 36 items, parent scale) was developed through assessment of other instruments currently in use for measuring child conduct and affect (Robinson & Tyler, 2006; Robinson & Tyler, 2008). The aim was to achieve a reliable and culturally valid measure of child conduct to include both externalising (aggressive, oppositional, etc) and internalising (withdrawn, isolated, etc) behaviours. It was adapted for the cultural and linguistic context of the Tiwi islands. Based on a pilot validation study with a non-referred sample of Tiwi children in 2004, Ngari-P has high test-retest reliability and very high internal consistency, with *Cronbach's* α for parents' and teachers' scales ranging from .89 to .97 (Robinson & Tyler, 2006).

2. Strengths and Difficulties Questionnaire (SDQ; Goodman, 1999)

The SDQ is a behavioural screening questionnaire measuring primary caregivers' (teachers and parents) perceptions of pro-social and difficult behaviours in children aged 3 to 16 years (Goodman, 2001; Goodman et al., 1998). It includes 25 items relating to the frequency of positive and negative behaviours. These are divided into scales measuring emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems (added together to generate a total difficulties score), and pro-social behaviour. This questionnaire has been incorporated successfully in the Western Australian Aboriginal Child Health Survey, WAACHS, (Zubrick et al., 2005b). The version used in WAACHS was adopted for the evaluation of Let's Start.

3. Parent Mental State (K6)

The K6 is a brief measure of psychological distress based on the longer K10 version developed by Professor Ronald Kessler and widely used as a screening tool and for evaluation in the general population and in subpopulations (Kessler et al., 2003). It was selected to test whether there is a relationship between parents' psychological distress and reported and observed parenting and child behaviour. Its simplicity and brevity made it easy to administer.

3.2.2 Behaviour Change and Tests of Program Effectiveness

A major design problem for estimating program effect (significance and size) is the loss of usable pairs of scores across the duration of the program. This reduces the initial referral sample to a fraction of its original size, introducing the possibility of bias from referral through to follow-up points. Participants retained to follow-up, for example, may be increasingly drawn from non-representative backgrounds, among children with more supportive family backgrounds and with non-typical problem score profiles at referral. For this reason, the research design addresses issues related to the presence, and possible consequences, of sources of bias across a range of socio-demographic factors and educational variables.

In light of these considerations, each of the hypotheses outlined above was submitted to the following tests:

Reduction in problem behaviours (Hypothesis 1). Tested by the statistical significance (t-test) of the changes (reduction) in scores for each pair of instruments between referral and end program, referral and follow-up points. Improvement size estimated by the Cohen's *d* statistic, and the reduction in mean scores for each pair divided by the pooled standard deviation and corrected for the inter-score correlation.³ In the absence of a control group, inferences about program effect were drawn by investigating the effect of attendance levels on rates of reduction in problem behaviour scores.

Maintenance of program effect (Hypothesis 2). Any reductions of problem behaviours observable at program end were compared with those at six-months' follow-up. A t-test was done of difference between the paired means at program end and follow-up.

Sample biases from progressive shrinkage (Hypothesis 3). Any systematic effect of reduction in the sample size of available paired scores was investigated by inspecting the socio-demographic and educational composition of samples across levels of participation, attendance and inclusion in the test regime. Significant biases (e.g. a greater than 10% variation in the sample proportions from referral), were explicitly stated and implications for interpretation and policy explored.

Background (covariate) effects (Hypothesis 4). As for any intervention, it was expected that any observable improvement in children's perceived behaviours would be influenced by socio-demographic factors, such as Indigenous status, age and gender. As well as these main effects, their unique combinations (e.g. male and Indigenous, Tiwi and age under five years) were explored. Multivariate techniques employed in this section isolated the most powerful predictor of program effect when other variables were held constant.

As with many other interventions involving numbers of children and parents in a range of environments, sample loss in Let's Start was a challenge to the evaluation process. This loss may distort the estimation of program effectiveness. Its effect on the sample mix deserves detailed consideration in at least three areas: (a) the numbers of children and parents in the program who are retained after referral, i.e., attending one or more sessions; (b) the number of sessions attended; and (c) the number of teachers and parents who completed valid assessment questionnaires at each of the three assessment points, referral, program end and follow-up.

In each of these areas, the relationship between subgroup participation and the social and educational mix of participating samples may affect inferences drawn from observed changes in children's behaviour. This section explores the effects, at each assessment point, of the children's Indigenous status (including Tiwi Indigenous), age and gender.

³ This formula using a correction for the correlation coefficient follows that used for the earlier estimates in the Exploring Together program (Tyler & Robinson, 2006).

This analysis therefore explores three related questions:

1. What are the characteristics (socio-demographic, educational and behavioural) of children referred to the Let's Start program?
2. What is the relationship between children's background characteristics (socio-demographic and education-behavioural) and their patterns of retention and attendance?
3. Have differential rates of retention, participation and attendance resulted in significant biases in the composition of surviving samples?

The first question was explored by cross tabulation of each possible source of bias (e.g., socio-demographic by educational and behavioural characteristics). The second question was explored by comparing percentages of each background group participating at each stage of the program. Comparison of these percentages across the course of the program and with those for the full sample, indicates possible sources of bias from the differential rates of participation of children from problematic backgrounds (Question 3). In the full tables (Appendix 2) rates that deviate from that of the total sample by 10% or more are highlighted.

The socio-demographic variables chosen for this analysis were Indigenous status in three categories (non-Indigenous, urban Indigenous and Indigenous Tiwi), gender (male) and age at referral (in three age bands, three to four years, five years, and six to eight years). Schoolwork and behavioural characteristics were: schoolwork rating by parents at referral (good, average, poor) and 12 categories of children's problem behaviour (e.g., aggressive, withdrawal, distractive). Table 15 shows the cross tabulation of socio-demographic characteristics of children referred to the program by their schoolwork and behavioural categories. The relationship between each of these categories to their patterns of retention and attendance is shown in Tables 16 and 17 in Appendix 2, and in Figures 8, 9 and 10 following.

3.2.3 Sample Profiles: Retention and Attrition from Referral to Follow-up

Do certain of groups of children (identified by Indigenous status, age, behavioural and schoolwork profiles) have higher rates of attrition within the course of the program? To answer this question, these sets of variables were analysed:

- socio-demographic characteristics and children's behavioural and adjustment problems, with schoolwork as identified at referral
- socio-demographic characteristics with attendance or retention and assessment response records
- behavioural/adjustment problems and schoolwork rating at referral with attendance and assessment response records

The following figures are based on Tables 15 to 17 in Appendix 2 of this report. Figure 8 displays the percentages of children from the main socio-demographic characteristics of referred children Indigenous and Tiwi statuses, male gender and

age grouping as classified by parents at referral interview on both schoolwork and problem behaviours. Figure 9 shows the percentages of children, parents and teachers from each of the children's socio-demographic groups as they participate in the program by attendance and at each stage of the assessment regime. Figure 10 shows the percentage of children from schoolwork, problem and adjustment group as they participate in the program by attendance and at each stage of the assessment regime. Figure 10 also tracks the low-scoring group from the Parents' NP scale through the stages of attendance and compliance.

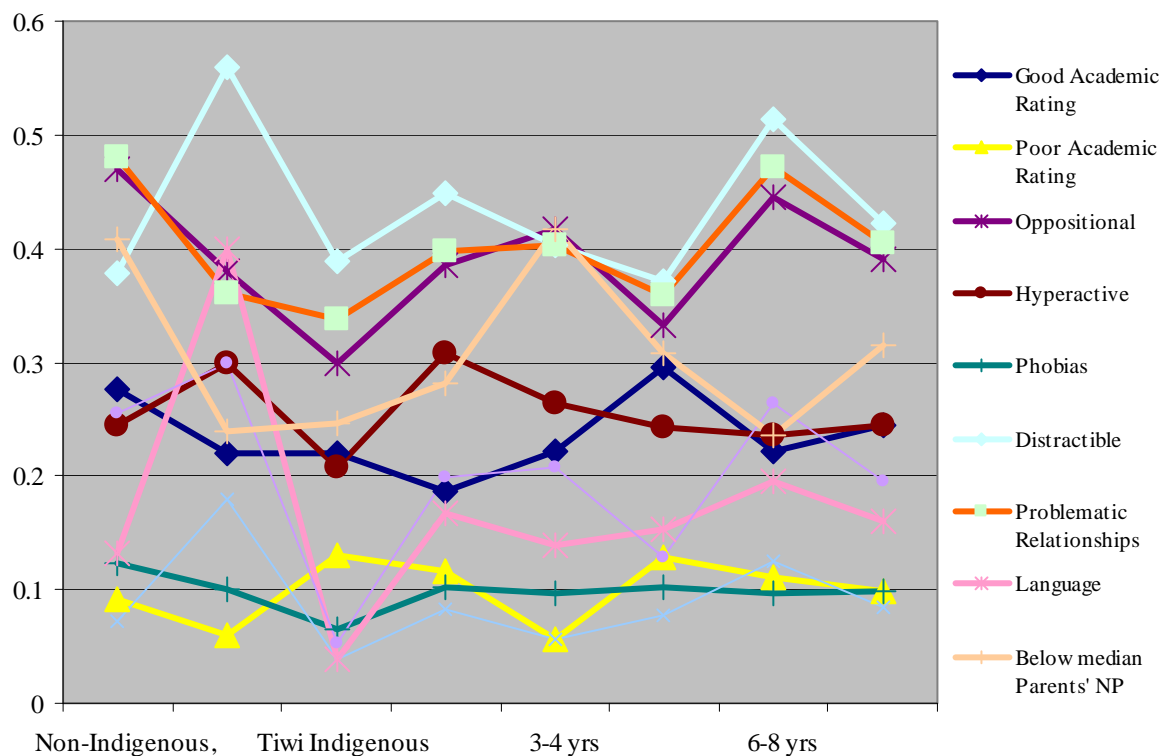
The reference group against which each percentage is compared is the total referral sample, shown at the far right of the horizontal axis. Because these figures show only the percentages, they 'hold constant' the composition of the total sample, and are therefore a fair indication of the over- or under-representation rates for each socio-demographic and referral problem group in the final evaluation sample. Significant sources of difference from the total sample percentages are represented in the line graphs, along with some others of substantive interest that may fall below this criterion.

To sum up, the dimensions of possible bias are two-fold: (a) the under-or over-representation in the assessment and attendance samples based on socio-demographic characteristics, behaviour, adjustment and schoolwork rating at the referral interview, the initial scores at referral (e.g., Parents' Ngari-P or SDQ scores); and (b) the consistency or inconsistency of rates of representation based on these criteria throughout program delivery. Since the referral group was not based on proportional sampling, the bias arising from (a) is not as serious as increasing rates of over- or under-representation denoted by the dynamic of (b). These two effects can act jointly to produce either a program end or a follow-up sample whose socio-demographic or behavioural profile bears little resemblance to that of the original referral group. For paired difference comparisons (see following section) we would then be left with a restricted evaluation sample that could perhaps be drawn from a lower-problem group of children and parents who managed to stay the course.

3.2.4 Socio-demographic Characteristics and Problems Identified at Referral

Some sample characteristics and presenting problems on referral were more common than others. In the problem behaviours identified at referral, language difficulties, aggressive, oppositional, distractible behaviours and problematic relationships were most frequently reported, accounting for 30% to 40% of the full sample. Since there were few missing data for these attributes (valid $n = 221$ for all categories), this distribution is a good indication of the mix of problem behaviours in the total sample and, by implication, of the typical referred child's behavioural profile. Thirty-two percent of the sample fell below the median parents' assessment score for the Ngari-P scale, indicating that roughly two-thirds of the sample show higher levels of perceived problem behaviours.

Figure 8: Socio-demographic characteristics by schoolwork rating and problems at referral



Given the diversity of the referred sample, it is remarkable that the proportions of educational and behavioural characteristics for the total referred sample approximate those for each socio-demographic category. The most notable exceptions are the proportions for urban Indigenous children. Although these children comprise 49 out of 225 referrals, their higher rates for problem behaviours compared with the total sample are of considerable interest, when contrasted with the urban non-Indigenous and non-urban, Tiwi subsample ($n = 77$). Of particular concern is the very high rate for language problems (40% as against only 16% of the total sample, 13% for non-Indigenous and only 4% for Tiwi children), as is the percentage identified with distractible behaviour (56% as against 38% for non-Indigenous urban children).⁴ Since the response rates are close to those of the total sample ($n = 221$), the consistent pattern of higher prevalence of this cluster of problem behaviours in this group of urban Indigenous children is worthy of further investigation. A working hypothesis may be that, while non-urban and traditional settings may be at a disadvantage for learning, language difficulties for the urban Indigenous child may be an important source of behavioural and adjustment problems.

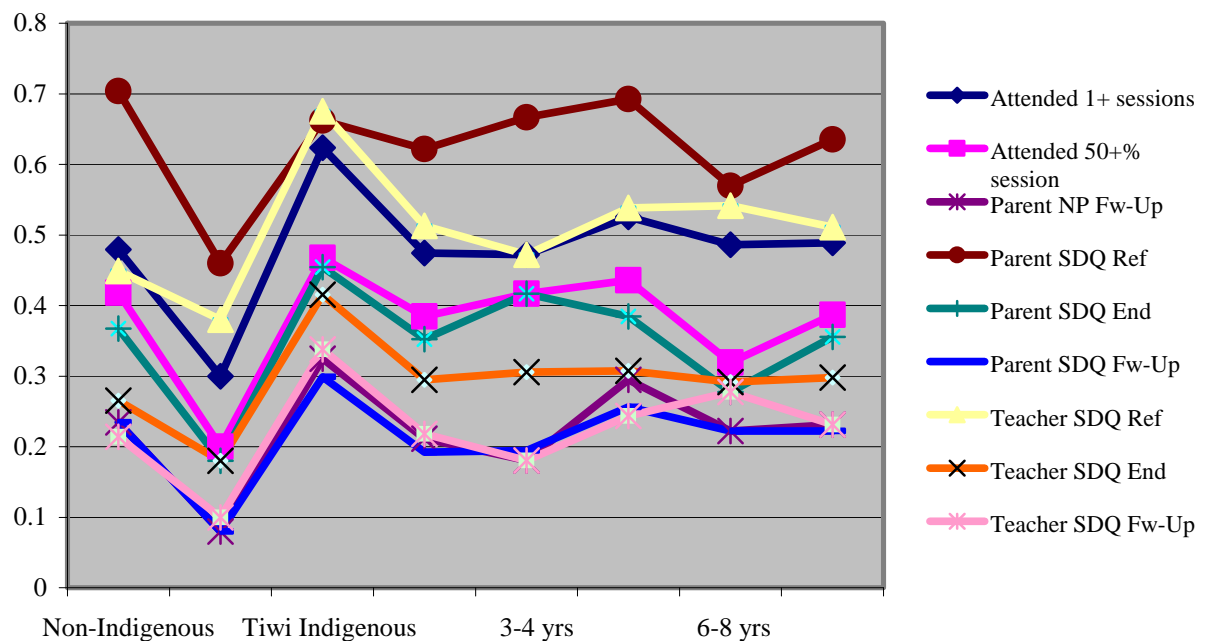
⁴ Note that differences in administration of the referral template in urban and remote settings may mean that some problems, such as cognitive, language and emotional problems may be under-identified and under-reported for Tiwi children.

3.2.5 Socio-demographic Background and Attrition

Figure 9 (based on Table 16 in Appendix 2) displays the general rate of participation in Let's Start by the three main socio-demographic variables, Indigenous status (including urban and Tiwi), gender and age.

The program was marked by the generally steep decline in participation over time. Only half (49%) of those referred participated in one or more treatment session, while only 38% attended half or more of the nine sessions. Within the assessment regime, there was about a 30% dropout in completion of assessments from referral to program end (from 64% to 36%) for both Parent Ngari-P and SDQ, and a 41% loss for the teacher inventories of both scales. This decline continued, resulting in a combined decline from referral to follow-up of two-thirds for parents (both Ngari-P and SDQ) and about 50% for teachers.

Figure 9: Participation rates of referred children by Indigenous status, gender and age



For the K6 scale, response rates were stable (dropping only 4% between referral and program end; no follow-up), but involved only about a quarter of the total referral group. These findings have significant implications for program designers in terms of expected ability to benefit from an intervention program: while programs may be efficacious, there may be significant barriers to effectiveness.

Across the socio-demographic profiles, these rates parallel those for the total referred sample, as well as one another. Once more the exception is the urban Indigenous group which shows generally lower rates (by about 20%) of attendance and participation in the assessment regime than for the total sample. However, this

lower rate was almost exactly balanced by rates correspondingly higher by between 10% and 20% for Indigenous Tiwi children and parents. Though the smaller size of the urban subsample indicated a need for cautious interpretation, the contrast with the larger Tiwi subsample ($n = 77$ or about a third of the total) suggests that these constitute two distinct response populations. Whether this difference is due to the school or the social environment, or the profiles of the children and parents referred to the program must be determined by further investigation.

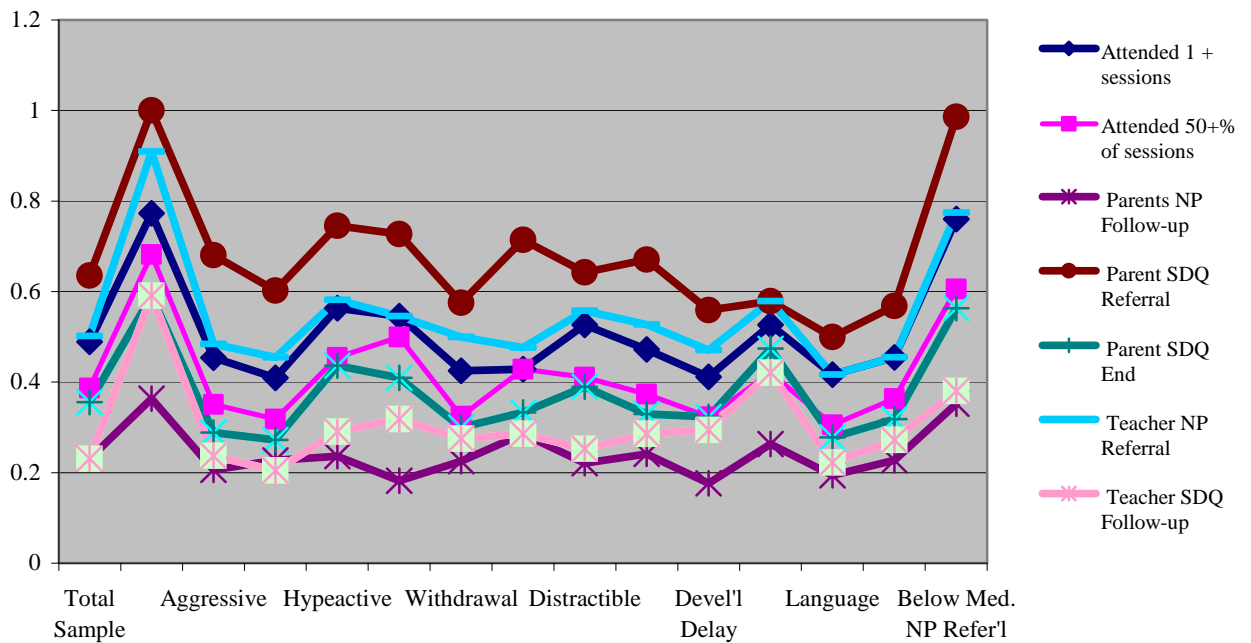
A significant deviation of subsample rates of loss from those of the whole population can result in the progressive concentration of one category through a process of self-selection. This is of particular concern if it results in over-representation of the less problematic categories in the evaluation sample. While participation rates for the urban Indigenous sample were lower than for the other groups, the two Indigenous subsamples seemed to be balancing themselves, maintaining a roughly constant proportion of Indigenous participation from referral through to follow-up assessment (56% to 60% respectively). The greater proportion of Tiwi within the Indigenous category raised their representation from 34% of referrals to 50% of follow-up cases (for both NP and SDQ scores). Given that Indigenous children were the target population for delivery of the program, the focus of attrition effect changes from a bias towards non-Indigenous groups to increasing over-representation of the non-urban population *within* the Indigenous subsample.

3.2.6 Schoolwork Ratings, Behavioural Characteristics and Attrition

It is important that there not be significant deviation in the completing sample from total sample proportions in the participation levels of children with different educational and behavioural profiles. These relationships are displayed in Figure 10 (based on Table 17 in Appendix 2), as percentages based on the subsample sizes of each of these categories. Again, cells that exhibit more significant levels of deviation from the total sample, whether lower or higher, are highlighted. For schoolwork ratings, comparisons are made with average schoolwork rating percentages. All other percentages are scored for the full referred sample minus missing four values (i.e., $n = 221$).

Schoolwork ratings were affected by a high percentage of missing values ($n = 84$ out of the total sample of 225) and were of interest only by comparison with one another, particularly against rates for the average category. As expected, the pattern of declining participation rates was broadly similar to those for the socio-demographic predictors, with roughly two-thirds loss for the parents' response rate and a half sample loss for teachers' response between referral and follow-up. There was a bias towards higher retention in the group rated academically poor as against those in the average and good categories for both Teacher Ngari-P and SDQ questionnaires. The problem behavioural groups had broadly similar rates of participation to those for the general sample, with one or two slightly higher rates of completion of the teacher assessments for the small 'phobias' subsample.

Figure 10: Participation rates by schoolwork rating and problems identified at referral



Children with lower levels of problem behaviour (below median Ngari-P scores at referral) were more likely to be retained in the program. Since this subsample had fewer problem behaviours, its higher rates of participation and attendance implied an attrition-caused bias in the sample available for estimating behavioural change. Any selection bias towards retention of children with lower initial problem behaviour scores tends to favour lower rates of behavioural change by restricting the potential for reduction compared with higher problem scores. Average rates of perceived changes in problem behaviours based on a lower-score sample could therefore underestimate the potential effectiveness of the program across the full range of the referred sample. The policy implications of this potential source of bias must be kept in mind as we turn to examine the changes in the samples available for evaluation.

To sum up, two main sources of bias occurred through program attrition and these operated to balance their impact on the retained sample at program end. Broadly, urban Indigenous children were more likely to leave the program while the Tiwi Indigenous subsample provided a stable Indigenous proportion over the life of the program. In the total, combined sample there was a slight over-representation of Tiwi children in the study sample as it progressed towards program end.

Among the socio-demographic and behavioural characteristics of referred children, the urban Indigenous group also stood out as having a very high rate of language adjustment problems among the Indigenous subsample, roughly 10 times that of the Tiwi children. Further investigation is needed to clarify the reasons for these

differences. Children with a poor schoolwork rating by parents at referral were over-represented throughout the program, as were children with lower than average Ngari-P problem scores at referral. Apart from intra-Indigenous disparities, however, deviation rates were fairly consistent (indicated by the parallelism of chart lines) throughout the course of program delivery, with little sign of increased concentration within the treatment groups from program commencement to follow-up.

3.3 Children's Behaviour Problems and Behaviour Change

The analysis of change resulting from program participation focused on reductions in children's problem behaviours as reported by parent and teacher using two measures, the Strengths and Difficulties Questionnaire (Goodman, 2001) and the Ngari-P (Robinson & Tyler, 2006). These were administered at referral and/or program commencement, program end, and six-months' follow-up. Changes in parents' wellbeing were measured by the K6 (Kessler et al., 2003), a six-point measure of general psychological distress. The instrument was administered to parents at program commencement, program end and six-months' follow-up.

As a test of the first and fourth hypotheses listed above, this section used these statistical procedures:

1. A description of distributions of behavioural perception inventory scores (parents' and teachers' rating of children's behaviours at referral, program end and follow-up; and scores for parents' well-being at referral and program end). The emphasis was on isolating pairs of scores from the same children from referral to follow-up.
2. A test of the statistical significance (paired t-tests) of differences between the means of all these scores across the observation points of the program, accompanied by estimates of the size (as distinct from the significance) of observed changes in children's behaviours.
3. An analysis (using SPSS-GLM procedures) of the effect of attendance patterns (dosage) and socio-demographic variables (covariates) on observed changes in mean scores for children's behaviour (and for parents' K6 scores) over the course of the program.

3.3.1 Children's Problem Behaviours and Parents' Distress: Distribution of Scores

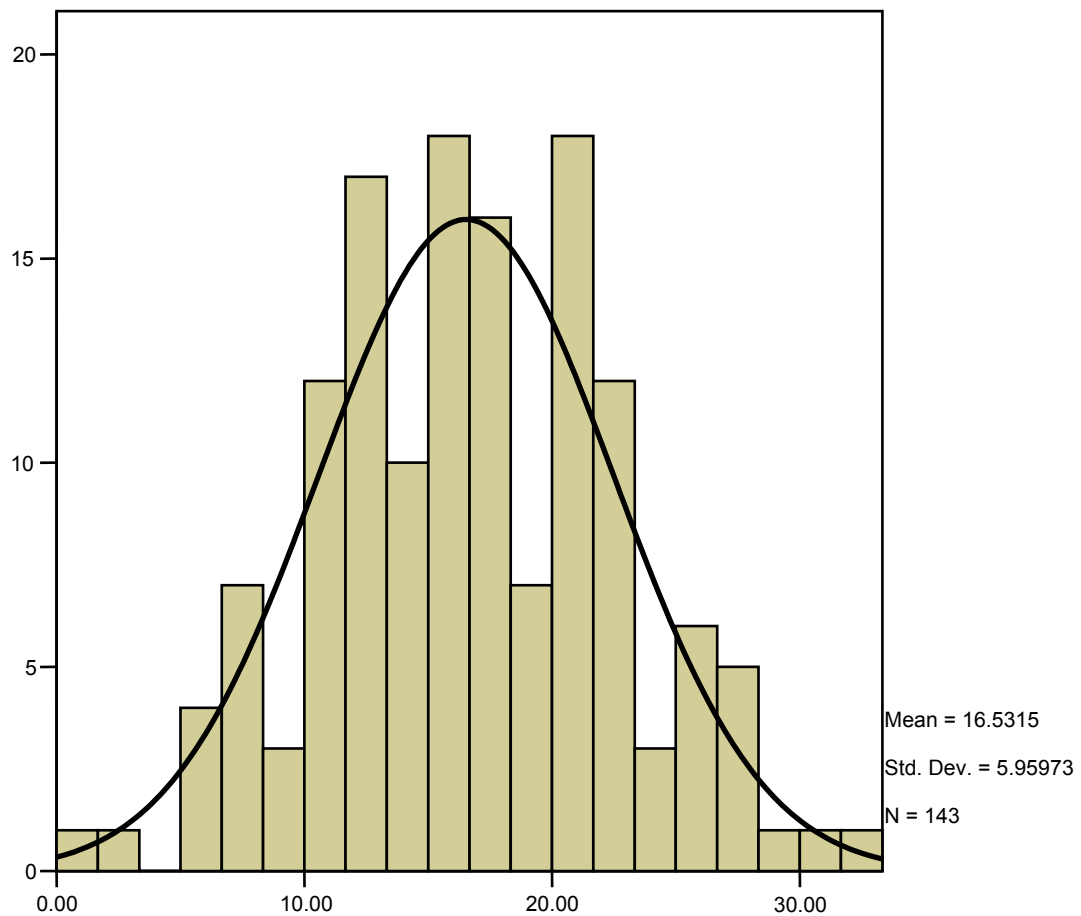
As noted, just over half of parents and teachers produced assessments to program end, and only about a third of parents and under half the teachers were represented in the final sets of scores at six-months' follow-up (Table 8).

Table 8: Descriptive statistics, child behaviour and parental distress

	<i>N</i>	<i>Mean</i>	<i>Std Error</i>	<i>Std Deviation</i>	<i>Skewness</i>	<i>Std Error</i>	<i>Kurtosis</i>	<i>Std Error</i>
Parents Ngari-P Referral	144	104.43	2.22	26.64	-0.35	0.20	1.53	0.40
Parents Ngari-P Program End	80	96.46	2.55	22.82	-0.01	0.27	-0.57	0.53
Parents Ngari-P Follow-up	52	88.92	3.24	23.40	0.17	0.33	-0.74	0.65
Parents SDQ Referral	143	16.53	0.50	5.96	0.02	0.20	-0.13	0.40
Parents SDQ Program End	80	15.04	0.67	5.96	0.26	0.27	-0.30	0.53
Parents SDQ Follow-up	50	14.18	0.89	6.27	0.30	0.34	0.23	0.66
Teachers Ngari-P Referral	115	141.03	3.90	41.79	-0.08	0.23	-0.37	0.45
Teachers Ngari-P Program End	67	128.60	5.44	44.53	-0.44	0.29	-0.14	0.58
Teachers Ngari-P Follow-up	52	120.15	6.25	45.06	0.34	0.33	-0.45	0.65
Teachers SDQ Referral	115	17.31	0.61	6.53	-0.09	0.23	0.01	0.45
Teachers SDQ Program End	67	15.91	0.91	7.45	-0.28	0.29	-0.70	0.58
Teachers SDQ Follow-up	52	14.40	1.16	8.36	0.03	0.33	-1.01	0.65
K6T1total	64	13.02	0.53	4.21	0.38	0.30	-0.44	0.59
K6T3total	54	11.30	0.57	4.16	0.74	0.33	-0.23	0.64

A remarkable feature of these distributions, however, is their normal distribution. Given that these are referred subsamples from mainstream classes, one might have expected the distributions to exhibit a negative skew towards the upper range of problem behaviour scores for both parents and teachers. This was not the case. The distribution of referral scores for the SDQ, a standardised instrument in wide use, is shown in the histogram in Figure 11.

Figure 11: Histogram of parents' rating of children's behaviour (SDQ) at referral



3.3.2 Analysis of Change from Referral: Ngari-P, SDQ and K6

Despite the reduction in the sample size through attrition, the results of the paired sample t-tests (Table 9) showed statistically significant reductions (all but one at the $p < .01$ level and lower) in the mean values of problem behaviour and parental distress scores at each point of the program. With the absence of overt bias due to program attrition and notwithstanding the absence of a control group, this result provides some *prima facie* evidence that the program has had the effect of reducing problem behaviours in the referral group. This effect appears to have been maintained and even reinforced, in light of the larger drop (almost a doubling of the decline) in the means between referral and follow-up, and between referral and program end. Cohen's *d* estimates of effect size range from .20 to .62, with referral to follow-up exhibiting higher values for both raters and both scale types, ranging from .39 (SDQ Teacher) to .62 (Parent Ngari-P). The effect size for parents' anxiety (K6) is particularly strong, though based on a small sample.

Table 9: Significance and size of change, referral to six-months' follow-up

<i>Paired Samples</i>	<i>Mean</i>	<i>Std Dev.</i>	<i>Std Error Mean</i>	<i>95% Confidence Interval</i>	<i>t</i>	<i>df</i>	<i>Sig. (2-tailed)</i>	<i>Cohen's d*</i>
				Lower Upper				
Parent N-P Ref.-End	9.13	22.85	2.57	4.01 14.25	3.55	78.00	0.00	.32
Parent N-P Ref.-F.up	15.71	22.89	3.20	9.27 22.14	4.90	50.00	0.00	.62
Parent SDQ Ref.-End	1.95	5.62	0.63	0.69 3.21	3.08	78.00	0.00	.25
Parent SDQ Ref.-F.up	2.12	5.69	0.80	0.50 3.74	2.64	49.00	0.01	.38
Teacher N-P Ref.-End	12.64	36.73	4.52	3.61 21.67	2.80	65.00	0.01	.29
Teacher N-P Ref.-F.up	20.15	38.91	5.40	9.32 30.99	3.74	51.00	0.00	.48
Teacher SDQ Ref.-End	1.82	6.24	.77	.28 3.35	2.37	65	.02	.20
Teacher SDQ Ref.-F.up	2.71	6.85	.95	.8 4.62	2.85	51	.01	.39
Parent K6 Ref.-End	1.72	4.38	0.67	0.37 3.07	2.58	42.00	0.01	1.03

* This statistic was computed from the pooled variance (original standard deviations, uncorrelated).

3.3.3 A Dose-response Effect?

In the absence of a control group design, estimating a dose-response effect on observed behavioural change based on the completeness of attendance of children and parents over the course of the program, indicates a program effect. The results of the relationship between program attendance and mean score changes are shown in Table 10.

Table 10: Mean changes* in assessment score by levels of attendance

<i>Attendance Category</i>	<i>Attended 1–4 sessions (n = 36)</i>			<i>Attended 5 or more sessions (n = 74)</i>		
<i>Paired Sample</i>	<i>Mean</i>	<i>Std Dev.</i>	<i>Std Error of Mean</i>	<i>Mean</i>	<i>Std Dev.</i>	<i>Std Error of Mean</i>
Parent NP Referral – End	5.15	17.33	4.81	9.91	23.82	2.93
Parent NP Referral – Follow up	8.67	19.32	6.44	17.21	23.51	3.63
Parent SDQ Referral – End	-0.92	6.09	1.69	2.52	5.40	0.66
Parent SDQ Referral – Follow up	-0.50	5.68	2.01	2.62	5.62	0.87
Teacher NP Referral – End	18.94	35.37	8.84	10.62	37.28	5.27
Teacher NP Referral – Follow up	23.91	45.88	13.83	19.15	37.40	5.84
Teacher SDQ Referral – End	3.63	7.18	1.80	1.24	5.87	0.83
Teacher SDQ Referral – Follow up	0.55	7.97	2.40	3.29	6.51	1.02
K6 Referral – Program End	-1.33	0.58	0.33	-1.75	4.54	0.72

*Mean differences > twice their standard errors are shown in bold

Results indicate a dosage effect: increasing program attendance was associated with decreases in children's problem behaviour, and higher attenders outperformed lower attenders by about two to one. The exceptions to this pattern were the Teachers' Ngari-P and SDQ scores from referral to program end, where the lower

attending group scored about twice the mean reduction (18.94 to 10.62 and 3.63 to 1.24 respectively).

3.4 Explaining Change: Socio-demographic and Participation Effects

Mean differences between paired scores are shown in Table 11 (significant results shown in bold) for a range of covariates (Indigenous status, gender and age). The distribution of covariate effects on change scores shows a consistent pattern of gains across the various assessment types and points of observation. All Indigenous groups showed reductions in problem behaviours, with the smaller size of the urban group reflected in lower significance levels. On the whole, though, non-Indigenous groups recorded higher reductions than either Indigenous category. Males generally recorded greater improvement in behaviour than females, with both genders showing higher reductions at follow-up than at program end. The influence of age on reduction was inconsistent, though the older groups (perhaps because of their higher attendance levels), showed higher rates of problem reduction, particularly at follow-up. It was encouraging to see much higher rates of improvement among those with poor schoolwork ratings, though here the most effect was apparent at program end rather than at follow-up.

Table 11: Mean change scores by Indigenous status, gender and age⁵

<i>Paired (Differences**)</i>	<i>PIP3NP</i>	<i>PIP4NP</i>	<i>PIP3SDQ</i>	<i>PIP4SDQ</i>	<i>TIT3NP</i>	<i>TIT4NP</i>	<i>TIT3SDQ</i>	<i>TIT4SDQ</i>	<i>K61K63</i>
<i>Covariates</i>	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>
Non-Indig.	15	22.52	4	4.17	16.81	17.4	2.27	3.9	2.71
Urban Indig.	14.11	9.5	1.11	-1.75	19.88	23.6	-1.88	-2	0.67
Tiwi Indig.	1.59	10.21	0	0.74	7.44	21.92	2.38	2.65	0.79
Female	7.17	14.74	1.21	2.1	10.29	19.78	3	4.67	0.86
Male	9.98	16.28	2.27	2.13	13.73	20.35	1.27	1.68	2.14
Age ≥ 6 yrs	7.9	19.81	2.15	3.19	2.57	25.7	0.43	1.65	2.2
Age ≤ 5 yrs	9.54	13.83	1.88	1.62	17.33	16.69	2.47	3.37	1.58
Average-Good	6.09	17.74	1.62	2.67	8.93	18.62	1.22	3	1.84
Poor	24.54	4.75	3.62	-1.29	31.18	24.7	4.82	1.85	1

Mean differences > twice their S.E.s are shown in bold **Code for 1 = Referral; 3 = Program End; 4 = Follow-up

This variable pattern of influence of socio-demographic variables on behavioural outcomes disguises two possible explanatory effects. On the one hand, possible associations exist between one or more of these influences where one may moderate the immediate or direct effect of the other. On the other, there may be unique combinations of values across the influences that explain more than each effect by itself. Male and Indigenous categories, for example, may be a uniquely powerful mix that adds more explanatory power than either of these two main effects. To more fully explore possible explanations, we used multivariate procedures that elicit less obvious effects from the analysis.

⁵ See Table 18, Appendix 2, for further detail.

3.4.1 Gender, Indigenous Status and Behavioural Change: Interaction Effects

Do the unique combinations of gender and Indigenous status exert similar effects on measured behaviour change across both types of parent and teacher scales? To explore the possible intricacies of this important explanatory term, the basic statistics showing the counts, means and standard error values for the score reduction for each subsample and for both relevant assessment scores (Ngari-P and SDQ) are shown in Table 12.

Table 12: Mean change scores, Ngari-P and SDQ by gender and Indigenous status*

<i>Gender</i>	<i>Sample Pair Changes[#]</i>	Non-Indigenous			Indigenous		
		<i>Count</i>	<i>Mean</i>	<i>Std Error of Mean</i>	<i>Count</i>	<i>Mean</i>	<i>Std Error of Mean</i>
<i>Female</i>	P1 minus P3 NP	19	10.33	4.13	17	4	5.42
	P1 minus P4 NP	19	13.56	6.91	17	15.8	3.10
	P1 minus P3 SDQ	19	2.25	1.26	17	0.17	1.11
	P1 minus P4 SDQ	19	4.00	1.94	17	0.55	1.56
	T1NP minus T3NP	19	1.45	12.62	17	20	11.13
	T1NP minus T4NP	19	3.00	10.93	17	36.56	10.27
	T1SDQ minus T3SDQ	19	0.45	2.05	17	5.80	1.43
	T1SDQ minus T4SDQ	19	2.78	1.82	17	6.56	1.99
<i>Male</i>	P1 minus P3 NP	28	17.33	4.74	46	4.29	4.58
	P1 minus P4 NP	28	28.29	8.37	46	6.94	4.23
	P1 minus P3 SDQ	28	4.88	0.99	46	0.26	1.15
	P1 minus P4 SDQ	28	4.29	1.23	46	0.25	1.56
	T1NP minus T3NP	28	28.07	9.31	46	6.57	6.27
	T1NP minus T4NP	28	27.75	8.10	46	16.32	10.01
	T1SDQ minus T3SDQ	28	3.60	1.00	46	0.10	1.25
	T1SDQ minus T4SDQ	28	4.75	1.51	46	0	1.63

*Mean changes > twice their standard errors are shown in bold; those with > three times their SEs are in green

[#]P = Parent; T = Teacher; 1 = Referral; 1 = Referral; 3 = Program End; 4 = Follow-up; e.g. T3 = Teacher at Program End

The pattern of statistically significant differences across all paired change samples shows a concentration of problem behaviour changes among non-Indigenous males and Indigenous females. Despite the small sample sizes, change scores for all of these subsamples are greater than three times the standard errors of their mean values, an indication that the probability of their values being equal to zero is well below one in a hundred times ($p < .01$) due to sample error. The only other difference noted is that for non-Indigenous females, Parent Ngari-P score pairs between referral and program end (i.e., top left hand cell P1 minus P3 NP) where the difference is more likely to have been due to sampling error. Conversely, change scores for Indigenous males are discouraging. Only one of these (Teacher Ngari-P referral to follow-up) falls well above zero (most are about zero or well within the range of one standard error), but even this fails the test of significance (at only 1.6 times its standard error). Apart from the Parent Ngari-P change scores, the same

applies to non-Indigenous females. This interaction effect has therefore considerable implications for policy development, since there is a clear, non-additive program effect (in size and significance) across the Indigenous/gender dichotomies.

3.4.2 Integrating Effects: A Multivariate Approach

At this point, three independent analyses had been used to estimate the efficacy of the Let's Start program. These were based on comparisons of mean score differences in (a) program effects (with no control for covariates), (b) with control for covariate differences (e.g., between gender groups), and (c) for interaction effects alone (unique combinations of covariate values) without control for main effects on behaviour change.

Each analysis yielded insights into the causal background to behavioural change, but each has its limitations. The comparison of mean scores (a), for example, does not tell us the extent to which mean change scores are due to the background effects of gender or Indigenous status. Again, estimation of the statistical significance of interaction effects has been limited by the size of the relevant subsample (e.g. the number of non-Indigenous females), rather than their contribution to changes in a full sample when main effects have been held constant. Paired sample comparisons do not allow us to estimate the changes across all three assessment points (referral, program end and follow-up) at the same time.

The next analysis used a more statistically rigorous procedure to address these questions:

1. Are measured behavioural changes still significant when important covariates (gender, Indigenous status) have been held constant?
2. Are covariate effects due to their independent influence on behavioural changes or to their interaction?
3. Are the patterns of effect broadly similar across both raters (parent, teacher) and assessment instruments (Ngari-P and SDQ)?
4. Are changes across all three points of assessment statistically significant while covariate effects are held constant?

Method: A multivariate approach (repeated measures), let us address these questions within a single, comprehensive model of behavioural change that went beyond mean paired differences. In this approach, the significance of mean score change was estimated in terms of within-subject differences across the two or three assessment points (the time factor). Covariate effects (gender and Indigenous status) were also included in this model and estimated as independent effects, along with their interactions. This repeated measures model was applied to all double and triple assessment point score distributions for both parent and teacher scales using the General Linear Model facility (SPSS 16.0). The results are shown in Table 13.

Table 13: From referral to follow-up: repeated measures analyses of intervention effects*

<i>Assessment Type</i>	<i>Pre-, Post and Follow-up Measures (Time Factor)</i>	<i>d.f.</i>	<i>Time</i>	<i>Time* Gender</i>	<i>Time* Indigenous Status</i>	<i>Time* Gender* Indigenous Status</i>
Ngari-P Parent	Referral – Program End	1,75	10.6 (.002)	n.s.	n.s.	n.s.
	Referral – Follow-up	1,47	25.7 (.000)	n.s.	n.s.	n.s.
	Referral – End – Foll-up	1,37	9.55 (.000)	n.s.	n.s.	n.s.
SDQ- Parent	Referral – Program End	1,75	8.3 (.005)	n.s.	6.57 (.01)	n.s.
	Referral – Follow-up	1,46	8.03 (.007)	n.s.	5.47 (.02)	n.s.
	Referral – End – Foll-up	1,36	7.35 (.01)	n.s.	n.s.	n.s.
Ngari-P Teacher	Referral – Program End	1,62	8.27 (.006)	n.s.	n.s.	4.2 (.04)
	Referral – Follow-up	1,48	13.5 (.001)	n.s.	n.s.	3.9 (.05)
	Referral – End – Foll-up	1,32	4.47 (.015)	n.s.	n.s.	n.s.
SDQ- Teacher	Referral – Program End	1,62	9.54 (.003)	n.s.	n.s.	7.53 (.01)
	Referral – Follow-up	1,48	13.2 (.001)	n.s.	n.s.	4.85 (.03)
	Referral – End – Foll-up	1,32	5.2 (.008)	n.s.	n.s.	n.s.
K6 (Parent)	Referral – Program End	1,39	5.4 (.025)	n.s.	n.s.	n.s.

* All ‘within-subjects’ effects: those with $p > .05$ are shown as n.s. (not significant)

These results indicate that the strongest and most consistent effect in the model is the time factor, representing changes (all reductions) in problem behaviour or K6 distress scores across the course of the program. In effect size terms (partial eta squared), these range from 12% of total variance explained for referral to program end scores, to over 20% of variance for referral to follow-up effects (for both parent and teacher scales). The independent effect of time (though not necessarily of the program itself in the absence of a control group) seems resilient as an independent factor, rather than a background effect of the two main covariates (between-subjects), gender and Indigenous status.

The pattern of covariate effects differs between parents and teachers, with Indigenous status as a main effect for parents’ SDQ, while the interaction term, gender by Indigenous status dominates those for the covariate effect for both teacher inventories. The three assessment point repeated measures procedure (referral, program end, follow-up) shows a significant effect for time for both parent and teacher raters, as well as for both types of assessments. The parent distress/anxiety scale shows a significant reduction between referral and program end, but no covariate effect.

The repeated measures procedure confirmed the independent effect of time (and, indicatively, of the program experience) when both gender and Indigenous differences have been held constant, and also showed variations in the causal pattern of covariate effect between parent and teacher scales. Indigenous status seemed to matter more to parents, while the interaction term (the unique combinations of gender and Indigenous status identified in Table 12) dominated covariate effects for teachers.

3.5 Hypotheses Revisited

3.5.1 Hypotheses

1. That average scores of parents' and teachers' assessments of the behaviours of participating children will show significant improvement between referral and program completion.

All assessments showed statistically significant improvements between referral and program completion for responding samples. Parental anxiety scores also showed significant reduction at program completion.

1 (a). And that any observed improvement will be positively related to levels of participation and attendance within the program ('dosage').

Higher attendance levels were significantly associated with observed improvements in behaviours for most participating samples, while only one paired sample was found among the lower attendance group.

2. That measured improvements in perceived children's behaviours will be maintained at the six-month follow-up assessment.

All observed improvements were either maintained or increased at point of follow-up.

3. That measured improvement in assessment scores will not be significantly affected by biases in sample composition due to differential rates of attendance and retention in the program.

Relative proportions of children from a range of socio-demographic factors, levels of schoolwork rating and exhibiting across a variety of problem behavioural categories, with few exceptions, remained constant in the face of high rates of attrition. However, children with lower parental assessment scores on the Ngari-P scale tended to be over-represented at all stages of the program.

4. That variations in measured improvement in children's perceived behaviours will be influenced by socio-demographic factors.

Indigenous status, attendance and schoolwork rating, as well as the interaction between age and attendance, showed statistically significant (though low to moderate) effects on parent-assessed changes in children's problem behaviours.

4 (a). That socio-demographic (and other covariate) influences on measured improvements will reflect unique combinations (interactions) across two or more values (e.g., male Indigenous, urban non-Indigenous).

To conclude, a detailed analysis of interaction effects indicated that two groups of children were significantly benefiting from the program – non-Indigenous males and Indigenous females (88% of whom were drawn from the Tiwi subpopulation). A series of repeated measures both confirmed and refined these results. This pro-

cedure showed an enduring and significant independent effect of the course of the program (time) when both gender and Indigenous status were held constant, as well as a significant independent effect of Indigenous status for parent SDQ assessments. This was contrasted with a marked salience for an interaction effect between those of gender and Indigenous status for both teacher-rated scales, Ngari-P and SDQ.

3.6 Conclusions

Quantitative analysis points to significant improvements in child behaviour both at home and at school, which are sustained at follow-up and which, according to some measures, continue to improve between program end and follow-up at six months. The cumulative overall effect between commencement and follow-up is highly significant with moderate effect sizes at program end and large effect sizes at follow-up. These improvements are confirmed by the use of two separate measures, the widely used SDQ and the Ngari-P, which had been developed initially for use with the Tiwi population. In short, there are indications of a positive treatment effect in the direction of improvements in child behaviour. In addition, there is evidence of a positive dose-response, an increase in effect with increased exposure to the program.

Similarly, the main measure of parents' wellbeing, the K6, shows significant improvement during program participation and at follow-up, with a large effect size (Cohen's *d*: 1.03) suggesting that parenting and improvements in the parental situation are not only important outcomes in their own right, but may be significant change-producing mechanisms in Let's Start ETPP. Although at this stage of the evaluation, measures of change in parenting style are not reported, there is qualitative evidence suggesting that parents benefit both from parenting discussions with other parents and through play with their children in the interactive groups. Different parents and parent-child dyads may experience the program in different ways so that change may occur through different mechanisms.

The continuing improvement after program end – that is, beyond mere maintenance of a program effect achieved during participation – is suggestive. It is plausible that a complex intervention such as Exploring Together should produce a mix of both immediate and longer-term effects, some of them mediated by, for example, reductions in parental distress and improvements in parental confidence, problem solving or assertiveness. The interactive group may improve parental responsiveness and collaboration between parent and child, thus helping reduce confrontational patterns of interaction. Such effects, if sustained beyond program end, might translate into continuing improvements in child behaviour at home and at school.

However, against these possibilities, it must also be considered that the transition to school for many preschoolers through to grade one is a difficult process of adjustment, and that, simply as a result normal development and learning improvements will always be expected over that period for many children. Further, by six-

months' follow-up, a proportion of the behaviour assessments by teachers may be completed by grade one teachers, that is, not by those teachers referring the child, raising the question of inter-rater reliability between program end and follow-up.

Finally, it is necessary to consider the impact of processes of engagement of parents (and teachers) as observers of child behaviour. Engagement of parents within the Let's Start program involves extensive contact both in and outside of program sessions (the formal 'treatment') in some cases beginning well before program commencement. It also involves dialogue for purposes of referral and administration of questionnaires and even home visits and other forms of assistance relating to transport, childcare, and so on. Does the total process of engagement of parents (and even, albeit to a much lesser extent, teachers) contribute to the measured treatment effect?

These questions could only be resolved with appropriate statistical control or comparison groups which could, among other things, control for both normal developmental improvement and for non-treatment effects of general engagement.

3.6.1 Study Limitations: Study Size and Design, Controls, Attendance and Data Loss

Although there are strong indications of a treatment effect, this cannot be definitively tested without larger numbers of cases and statistical controls, either through a wait list control group or other controls. Issues of research design were compounded by problems of data loss. Although over 100 persons commenced a program by the end of 2008, the final number of participants available for some elements of analysis was around 50. Missing data is a major problem for the evaluation of program outcomes. The main statistical reasons for missing data and the small final number of cases in the analysis include firstly, the requirement of the repeated measures design which eliminates cases with missing data from the analysis entirely. This saw the elimination of 36 cases in which sessions had been attended but for whom there was missing SDQ or Ngari-P data at one or more measurement points. The program commencement rate, which saw only 50% of referrals ever attending a session, accounts for the biggest drop in the number of cases available for measurement and follow-up.

Where possible and in most cases, instruments were administered with a program team member present, thus as a kind of structured interview. With this approach, the main logistical reasons for data loss were mobility (for both parents and teachers, Tiwi and Darwin) and non-response (most often in Darwin, when instruments were mailed to participants and not returned, despite phone follow-up). Data quantity and quality are affected by the drop off in attendance over the last weeks of the program. These problems are frequently encountered in targeted programs, and are reasons for the lack of research designs using control groups or other rigorous designs with such interventions (Dawson & Berry, 2002).

It is clear from the extent of data loss and the contextual evidence provided later in this report, that this research requires specific resources and strategies of engagement to help overcome participant loss during and after treatment and to ensure complete data integrity during the period in which participants remain engaged. This may include attention to more flexible design both in delivery of the program itself to optimise retention and in data capture to follow-up along with measures to enable a control group design.

Current levels of interest in the program, with over 200 referrals by 2008 and over 100 persons commencing a program by 2008/2009, were not necessarily sufficient to achieve a wait list control option: this was due to the sporadic nature of the intake process and the substantial loss of cases during the actual waiting period between referral and commencement. Alternatives to wait list controls need further consideration.

In summary, more extensive application of resources and appropriate agreements with and levels of support by stakeholders than were available to this project would be needed to recruit participants in sufficient numbers and in sufficient time before program beginning to establish appropriate controls and to boost the number of cases for analysis.

3.6.2 Threats to Validity and Further Theoretical Investigation

The study has been able to demonstrate effects at both program end and follow-up, with some evidence pointing to a positive dosage response – that is, greater exposure to the program (attendance at sessions) appears to be correlated with greater changes on SDQ or Ngari-P measures.

While the small number of cases available to the analysis handicaps it in clarifying change mechanisms, a number of theoretical possibilities should be considered. The originators of Exploring Together and the developers of the current trial highlight the following dimensions of possible effect (for parents):

- (a) a therapeutic effect of professionally led group work (both in interactive parent-child and parents' group settings) which encourages parental disclosure and has the effects of reducing anxiety and distress, freeing communication, reducing isolation and adding to insight
- (b) a didactic effect, emphasising skills transfer to participants
- (c) a problem-solving focus which identifies specific strategies in response to parents' concerns, disclosures and interests

Originators of Exploring Together suggest that the therapeutic work is the main mechanism or process promoting change within the program: at a minimum the program helps to reduce some of the anxiety, guilt and shame that parents are experiencing – by showing parents that they are not alone – while simultaneously providing access to alternative behavioural models for parents to follow. Participation may catalyse more profound change for some individuals.

The mechanisms are almost certainly different for parents and children. For children, there is a didactic objective, related to the modelling of manners, turn-taking and problem solving through peer play in the children's group and with the support and encouragement of parents in the interactive group. The latter format in particular is a classroom-like situation, with teacher-like group leaders, but with parents present. This echo of the classroom combined with parental support may be an important experience for some children. For other children, the opportunity to have exclusive attention of and recognition by the parent without interference by siblings or other family members with whom they normally compete for attention, may be the decisive experience. The frequent negative acting out that occurs when a sibling is brought to the program by a parent provides an often striking indication that this effect is an important one. The program structure indicates that sustainability of change in the parent is a key factor in change on the part of the child.

Concerning the differential effects according to gender and indigenous status, we must consider at least two hypotheses: first, that boys and girls, Indigenous and non-Indigenous, present to the program with substantially different problem profiles and thus respond to the treatment differently; second, that the treatment is in effect different for these categories, in other words, a program attended by mothers has a different effect for boys than girls in the Indigenous and non-Indigenous subgroups. Further analysis and, eventually, redesign of the research strategy may shed further light on these theoretically informed interpretations and hypotheses.

The issue of dosage and effect may need to be considered in any redesign. It may be for example, that the program provides a powerful, concentrated effect within a few sessions and that this has a wider multiplier effect that continues in many cases through to six-months' follow-up, as indicated by the findings here. Given the outcomes of the present study in which only half of the attendees attended 50% of sessions or more, is it possible to reframe the program into a brief intervention with the same efficacy as the current design? Against this, there is the consideration that, aside from length of exposure, time in its own right is an important dimension of the change process; that is, a program whose effect is not primarily didactic cannot work if delivered in concentrated shortened sessions.

Addressing these questions would entail both expanding the number of cases and developing controls to enable rigorous testing. It would also entail developing additional evaluative strategies to measure specific effects, particularly those tailored for small samples.

4. Findings: Qualitative Analysis of Process and Outcomes

4.1 Engagement

In the field of family support and early intervention, it has been well established that the most needy families are often the most difficult to reach and, once engaged in programs or services, are less likely to be retained in any intervention (Katz et al., 2006; Dawson & Berry, 2002). Interventions developed for mainstream settings often effectively ‘select out’ these families through processes of recruitment and program promotion which attract those families who are active service users and are already likely to be responsive to the intervention messages. Such families are in turn more likely to stay the distance in any program. Attempts to make standard or mainstream parenting programs available for Indigenous Australians have often implicitly used such selection processes to maintain program integrity while extending product reach (Bailie & Robinson, 2007). Working in diverse social and cultural settings in which families have a wide range of unmet and often unarticulated needs (needs not expressed in terms of demand for services), the Let’s Start program has had to develop a range of strategies to deal with these differences in potential client groups – particularly among Indigenous families of Darwin and surrounding areas. Reducing barriers to participation through effective engagement and retention of Indigenous families from diverse backgrounds and with high levels of unarticulated need has remained the key focus of activity throughout the life of the program (Snell-Johns et al., 2004).

The issue of engagement is here explored in two dimensions: establishing a model of program delivery through engagement with schools and engagement with parents through the processes and opportunities established through the delivery model.

4.1.1 Models for Program Delivery: Working with Indigenous Families in Darwin

At the outset in 2005, the Let’s Start team was unsure what the preferred model for delivery would be. There was a strong assumption on the part of some schools contacted that it would be school-based, and would effectively work school by school, focusing on the community of parents with children attending each school.

It was quickly learned that the demands of the Exploring Together program structure and the targeting of participants according to type of children’s difficulty would constrain the pattern of engagement of schools and families. The balancing of demands on schools and demands on families while retaining the targeted selection process and multi-group program format is a complex matter. Some basic decisions about the strategies to be undertaken were made after initial pilots at Millner Primary School (MPS) and MCS School at Nguju in late 2005.

MPS has around 50% Indigenous enrolments. Children from two urban special housing leases in the inner northern suburbs of Darwin attend the school and the principal was concerned about attendance of children from these small communities. These communities are in many respects closed worlds; children cross the boundaries to any kind of participation outside the community with difficulty. Millner school has actively sought to improve attendance of these children through its breakfast program, home visits of the Aboriginal and Islander Education Worker (AIEW), and the work of an early childhood teacher who has assisted a reading program and maintained contact with families in one of the lease communities.

For the first pilot at MPS in Term 4, 2005, the Let's Start team expected to deliver the program on the school premises, for Indigenous children in preschool, transition and Year 1. A key element of the engagement strategy was to involve team members, helped by the AIEW, in approaches to Aboriginal families, preceded by a letter from the principal explaining the program. School liaison officers, inclusion support assistants (ISAs) and AIEWs were to act part time as group leaders within the program. However, for a number of reasons, the program could not be delivered in this way.

1. Referrals

In any one school, the numbers of children in the preschool–grade one age band are relatively small. At MPS, around 10 children were identified at meetings with early childhood staff. Of these, three had clear diagnosed difficulties, including developmental delay and profound hearing loss, conditions which suggested non-inclusion in Let's Start. Two others only irregularly attended school and it quickly became clear that they were not likely to attend the program.

2. Recruitment

In the initial pilot, the program was promoted by mainly face-to-face strategies, along with information in the school newsletter. Team members attended a weekly play group at one of the communities with the school's outreach teacher, volunteered to work at the school's breakfast program, and attended the adjacent preschool to work with the teacher and meet parents in a familiar surrounding. Eight referred families were each sent a letter inviting them to the program. Teachers were encouraged to talk directly to parents about the school's partnership with the program and the potential benefits for their children. The project leader and school AIEW conducted a door knock of invited parents.

At the urban lease communities, the project leader and the school's AIEW visited important community members, including the Secretary of the Association which manages the Indigenous housing leases, and gave them information about the program.

3. Retention: social differences, stigma and group cohesion

For this first pilot, of the eight initially invited, a group of five children was identified whose parents agreed to attend: one from each of the two housing leases, two

Indigenous children from suburban households and one non-Indigenous child. Clear differences between interests of the Indigenous participants quickly emerged.

Two of the parents from suburban households preferred to be in a mainstream rather than Indigenous-specific program, which included people from all backgrounds. Many people perceive that an Indigenous-specific program stigmatises parents and children. By contrast, parents from the housing leases lacked confidence in the presence of more literate group members who were relatively fluent with the concepts of the program and ways of talking about parenting and children's behaviour. They expressed the wish to have 'more people from our area' in the group. This was further complicated by the fact that there was some tension between people from the two housing leases both for historical reasons and in some cases for reasons related to specific family relationships. Thus two groups of parents from ostensibly similar circumstances (the lease communities) would not come together. One family, despite repeated assurances that they would attend, failed to come at all; one or two others failed to attend, citing the child's reluctance to attend school.

4. School resources and staff

Millner school is relatively small, and did not at the time have suitable rooms free from intrusion. Some parents were uneasy with attendance on the school grounds, and in rooms close to the noisy general business areas of the school. Access to suitable facilities for the program, away from the busy areas of a participating school, became a priority.

Beyond assistance provided by the AIEW and provision of referrals by teaching staff, involving Millner staff in program delivery was unsuccessful, despite the principal's support. School business tended to override staff availability for what is a demanding program in terms of timelines and protocols. Engagement of AIEWs has proven very much dependent on the circumstances of the individual staff member and his or her determination to participate. Consistent integration of school staff in actual program delivery over time in urban settings has not been achieved.

4.1.2 Lessons from Millner Pilot for Urban Indigenous Involvement

The Millner pilot program was discontinued after four weeks primarily because attendance of three of the five parents broke down. This was for a mix of reasons including some of the above factors and changes in the personal circumstances of two parents. One member of an urban household was unable to manage workloads and commitments in the context of ongoing legal consequences of recent domestic violence; another appeared to retreat from the open discussion of domestic violence in the parents' group and, despite awareness of the referral reasons concerning her children, appeared to be uneasy about being *seen* to be in a program which targeted these issues at their school; as reported, members of special lease communities were uneasy about sitting in a mixed group with other Indigenous and non-

Indigenous people. Finally, after struggling to encourage her niece to attend each week, one of these parents was also subject to sudden new demands from kin visiting from remote areas, with the result that she was suddenly responsible for other children and delegated responsibility for the referred niece to others. In short, the heterogeneity of the group and the initial reluctance of some parents to attend in the first place combined with somewhat inadequate facilities to make this initial group unworkable.

On the basis of the experience at Millner, a number of decisions were taken. The professional resources and time required to deliver the Let's Start program cannot be found within a single school or even a group of schools. By contrast, for an independent, in this case university-based delivery team, attempting to promote and deliver the program through intensive face-to-face promotion on a school by school basis proved inefficient and, given the small numbers of referrals from a single school, unsustainable. Even in schools such as MPS, with a high proportion of Indigenous students, the potential target group is small, so that within the group of children eligible to participate, the proportion of parents who are interested in joining the program and thus likely to participate for the full term is likely to be insufficient to sustain the program on a regular basis at any one school.

The attempt to promote the program by contacting referred parents would therefore be substantially replaced by a strategy of promotion through schools, making early childhood staff the key point of initial contact with parents. Schools showing interest in the program would be given information and support, and then asked to do the initial work of contacting parents. Parents showing interest in participation and who signed the referral form would then be contacted by the Let's Start team. It was expected that this would lead to higher levels of attendance and retention in the program. However, it would require continuous work across the clusters of schools to generate the level of interest required.

To build a stream of referrals to run the program consistently, it was decided to seek referrals from clusters of schools and to run the program at a neutral location: for the northern suburbs clusters, at a family centre with two large adjacent rooms and kitchen facilities at Malak, and in the Palmerston cluster, at a childcare centre on the grounds of a participating school. More importantly, it was decided that the diversity of the Darwin Indigenous population and the challenge of engaging families and parents from diverse social backgrounds meant that there was a fundamental risk that the program could not be continuously delivered. Working school by school and with Indigenous families with such divergent interests and sensitivities, would have involved a level of discontinuity of operation and focus that would have threatened the program's viability. In this case the professional resources to make the program available at all could not be sustained. Thus to ensure growth in referrals and to meet concerns of some Indigenous people about attending an Indigenous-specific program, the program would be open to people of all backgrounds.

Some Indigenous participants clearly wanted to be in a general program open to all, with a preference for being off school premises with the usual confidentiality and anonymity of a professional service. However, people from the urban leases were if anything anxious about being in a confidential, anonymous program and wanted to be in something that could be more openly supported by people from their area or community. These messages led to the formation of two parallel models for the Let's Start program in the Darwin-Palmerston and Darwin rural areas:

- *A mixed mainstream or general intake model*, open to all, with referrals taken from any participating school, and school staff being the first point at which parents are invited to join the program.
- *A targeted community-oriented program* in which the team works with Indigenous urban and rural communities, using strategies appropriate for specific school and community contexts.

4.1.3 NTER: Let's Start for Urban Special Lease Communities?

From 2007, with additional funding provided under the NTER, the Let's Start team sought to approach community leaders in one of the special lease communities of suburban Darwin. An unused childcare centre was located in the community and seemed to offer an ideal location to run the program. Numerous meetings were held with community leaders and with individual parents to prepare for commencement in Term 4, 2007. Six families initially agreed to participate.

Despite extensive preparations, including barbeques with bush tucker and other activities to familiarise participants with team members, the program could not be completed. Parents could simply not be encouraged to attend at agreed times. On one occasion, where parents were available, they could not be brought to sit together at one time: at first three mothers came to sit together; then after two more parents came forward to sit with the others, the first three parents withdrew to a distance. Throughout, other parents (including two fathers who had agreed to attend) were watching at a distance, but could not be encouraged to come together with the group as a whole. With these uncertainties, parents appeared to remain somewhat nervous and would not join in activity with the children, who were playing with toys on a mat. They remained sitting at a distance, some talking with the team members while the children played. Eventually, the group broke up altogether and the session was not concluded. Other weeks brought similar results, with at most a couple of parents prepared to participate at any one time.

Interestingly, parents spoke with some feeling about issues of concern to them, issues which were clearly matters that could have been discussed during the program. For example, one mother described her inability to manage the behaviour of the son who had been referred to Let's Start; he was continually disobedient. He was jealous of the attention the baby was receiving and made the baby cry. When she reprimanded him, he would run away and sleep overnight at a friend's house. He would not help her at all at home, but would steal money from her purse and

run off and spend it with his little friends. Other mothers spoke about children's shyness and their fear of bullying by other children in the community and about the link between fearfulness, separation difficulties and school attendance. At least two mothers suggested that they were looking for alternatives to the school attended by most of the children from the lease community and indirectly indicated that they were unhappy as a result of conflict with other families in the lease. This was often related to tension over the behaviour of children towards each other. However, these are families with limited means and at present lacking the capacity to sustain a tenancy outside of the lease community.⁶

In summary, delivery of the program in this lease community was compromised by two major related difficulties: (a) the lack of readiness of parents to come together and talk about issues affecting their children in a community beset by tensions, in which children's issues were sometimes a cause of dissension between families and in which parents had too much knowledge of each other to feel comfortable talking together about personal, family issues; and (b) the difficulties in bringing parents together further meant that it was impracticable to base the program on withdrawal of children from school and transport to the premises adopted for the program on the lease community (children cannot be withdrawn from class, unless parental attendance has first been secured).

Concerning the intra-community tensions, after consultation it was concluded that some parents would be willing to attend a program with Aboriginal parents from elsewhere in Darwin other than the lease community, thus avoiding anxiety about exposure to other parents from their community. Concerning the inappropriateness of the school withdrawal model, it was felt that one solution may be to advocate a school-based model for a program for this community, with a central focus on encouraging the parents to come to school and complete a program of activity on school premises. This type of program would need to be strongly supported by and in great part run by the school as part of a school-community partnership.

4.1.4 Establishing the Let's Start Program on the Tiwi Islands

The establishment of Let's Start on the Tiwi islands drew on earlier experience of implementation of the Exploring Together Primary School program between 2000 and 2003 (Robinson & Tyler, 2006). Teachers generally were familiar with the processes, and meetings with them during the term preceding operation allowed for relatively easy identification of children for the program. The team then approached parents individually to invite them to participate. The focus has been on identifying parents most likely to attend, and the team attempts to judge whether factors predisposing to non-completion exist – these might include parental transience with child frequently left in the care of its grandparents, or current spousal

⁶ It should be noted that this attempt to deliver Let's Start coincided with community consultations relating to the implementation of the NTER. There were often agitated community meetings at this time, with some parents feeling uncertain about the consequences of income management for them.

conflict, in some cases combined with substance use issues. Other factors, such as parental employment, are taken account of by contacting employers and/or providing letters to secure release of parents to attend the program.

Beyond the set up and adaptation of basic processes, the operation of the Let's Start program in communities of high risk – both on the Tiwi islands and in urban communities in Darwin – is subject to stresses in a way not encountered in the mainstream program. The problems encountered in such communities were highlighted by the Western Australian Aboriginal Child Health Survey (Silburn, 2006). High levels of suicide on the Tiwi islands have been well documented (Davidson, 2003). Communities suffering high levels of stress from suicide and selfharm, domestic violence and high levels of substance misuse present difficult contexts in which to deliver high quality structured interventions. Community and family stressors tend to overturn program boundaries and to impact negatively on parents' capacity to participate in a targeted program.

On the Tiwi islands, the routine weekly delivery is affected by unforeseen incidents or sources of stress which affect not only individuals but also the entire group, if serious enough. At least two programs on the Tiwi islands were disrupted by serious incidents directly or indirectly affecting participants: one a suicide, the other a boating tragedy in which three persons (including close relatives of current participants in the program) died. In other cases, individual parents were affected by ongoing domestic violence, substance misuse at home, or other stressors that caused them to withdraw.

For example, the suicide of a young man occurred after tension between the deceased and a parent attending the group. The parent left the community temporarily, thus missing four sessions. Tensions relating to the same incident also arose between other parents (including one whose older daughter had been in conflict with the person who had committed suicide), affecting their participation. As a result, the last weeks of the program were fragmented and unsatisfactory, and the parents' group discussions were somewhat pervaded by talk touching on the suicide, the flight of the group member, and related matters. Although the child of the departing mother had appeared to be learning to communicate and interact within the framework of the program, his anger at his mother's sudden absence and at the temporary arrangements to care for him appeared to entirely negate the gains.

4.1.5 Key Lessons in the Tiwi Context: Extended Families, Partners and Siblings

In addition to the stresses of the community, the cultural context of the Tiwi islands (and some urban settings), patterns of community life and aspects of the functioning of extended families all present challenges for a program designed for operation in mainstream Australian settings.

1. Family functioning, siblings and care

For the general intake program in Darwin parents in small families are expected to make arrangements for other siblings (sometimes with assistance of Let's Start

through its partnership with a childcare centre in Palmerston). This is often not the case on the Tiwi islands where parents often seek to bring younger or sometimes older siblings of the referred child to sessions. At initial interview with parents, group leaders aim to find appropriate arrangements for siblings and other dependents to limit attendance to one child and one parent only. The extra children may include older siblings whose behaviour may be a cause of difficulty for the referred child, but most often includes toddlers not yet at school. Despite this effort, many parents are unable to attend the program without bringing siblings. It is often not feasible to attempt to find substitute care for the additional children, who may refuse to accept what arrangements are proposed, and so on.

A recent relocation of delivery of Let's Start at Nguui to the Jinarni Childcare Centre has helped the team deal with the issue of younger siblings more effectively. Parents take little children to a separate room with same aged children and toddlers and then return to the Let's Start program to join the referred child. It was noted that, during the course of a recent program at Nguui, a number of mothers became much more relaxed and assertive about placing their small children in childcare in preparation for the day's sessions. However, there still remain many occasions when parents cannot separate from a sibling. The presence of siblings invariably affects – usually negatively – the behaviours of the referred child in the interactive group, and sometimes confounds efforts to separate from parents for the children's group activity. While parental handling of sibling demands is an appropriate theme for discussion in the parents' group, the impact is to deprive the referred child of experience of working with the parent alone.

2. Parents, partners and kin: mothers or fathers in group programs?

Let's Start ETPP does not prescribe whether fathers or mothers should attend the program with their children. In practice attending parents have been mainly mothers. However, in number of cases, fathers have attended the program, in a very small number of cases filling in for the mother if she could not attend on a given week. In Darwin, this has been generally successful, and partner evenings have been useful complements to the activity of sessions with about 50% of fathers attending these meetings. However, on the Tiwi islands and in comparable settings, attendance of fathers for sessions can be awkward, because of the nature of Tiwi kin relationships, according to which all male and female persons are in kin relationships, many of which are marked by 'avoidance', so that they should not talk directly to, have eye contact with or be in close proximity with members of the opposite sex in those relationships. As a result, the Tiwi program has worked on the principle that attending parents should normally be mothers, with attempts to engage fathers in complementary activity. Cases where there has been strong interest in a father attending the program are individually assessed.

4.2 Parent Engagement and Satisfaction

Parents/caregivers in the Darwin and Jabiru programs are clearly satisfied with Let's Start. A standardised Parents' Satisfaction Questionnaire (PSQ) is administered following the 10-week program. Overall responses are quite consistent

(Cronbach's alpha .73) and substantially positive (mean 4.6, sd .4, range 3.6 to 5.0 on 1 to 5 scale). A sample of the written responses about Let's Start in the following sections highlights key features of the program for parents/caregivers.

I liked best...

Interactive session with [facilitator]. Learning new skills of playing with [child's name].

Talking to others. Fun things to do. Looked forward to each week.

Interacting with other parents, knowing you've got support.

[Listed the names of the facilitators]

I like most the parents section. I am able to listen and learn.

Great way for us to spend time together, quality time while learning.

The program structure – time with children/time with other parents – a good balance.

Being with other parents, parents group given different strategies, flexible program, open discussion, parenting pyramid. Being able to identify triggers.

Contact with other mothers, sharing of ideas related to strategies in managing [child].

The feeling I wasn't alone, look forward to each session for encouragement. Looking at different perspectives. Learnt a lot – [child's] behaviour was a reflection of the way I behaved. Helped me understand my child.

Activities, helpful advice on certain ways how to discipline [child] and interact with him. The morning brain exercises.

People were friendly, didn't feel out of place talking about problems, felt comfortable. It was good because I know a group leader.

To find out you're not alone.

I liked least...

Finding a babysitter for my youngest.

That it ended!

Program should run after school so kids don't have miss out school. Two hours is too short.

Getting to know new people when shy + no aircon, need it in Darwin especially during build-up.

Over all too soon and the drop out rate of other participants.

Feedback – negative behaviours, positive behaviours, what leaders observed.

The time was difficult for me for work reasons, meant I could include husband.

Wish you could have gone on longer.

Ways to improve the program...

Longer time to finish joint activities and longer parent time to discuss situations.

The way we are going to use these things we make, use them – say in parents group next week.

Suggest maybe more kids and more mothers involved. Other than that, I like the program very much. Now my child and I are getting along better thank you.

A little feedback time after separate sessions. Never know how child did from week to week in their session. A bit longer bonding at end of session each week.

Feedback to parents when coming back together (2nd interactive group) better mix of group – looking at behaviour, family of origin issues.

More time in group with other mothers. [Child] acted out and I had to go and deal with him which make me feel like I lost those opportunities talking with other parents – maybe ongoing support group.

In summary, parents in Darwin, Palmerston and Jabiru showed very high levels of satisfaction with the Let's Start program. Many reported important changes in their child's behaviour or in their own parenting, or in both. These indications of satisfaction have been accompanied by numerous incidents in which parents have spontaneously reported comments of teachers concerning marked improvements in their child's behaviour.

On the Tiwi islands, parent feedback was less consistently recorded using the PSQ, largely as a result of disruptions to the program and changes in personnel within the Tiwi team. However, semi-structured interviews were held in concluding sessions of the program. These yielded the following comments:

I liked best...

Kids playing together.

Good program.

Sharing with other mums.

Helping (child) to get along with other kids.

Talking about kids' issues.

Helping kids, playing with them and singing.

Talking with other parents in the parents' group.

Spending time with (child) and doing things together.... because we can't do it at home.

Sharing stories with other parents and leaders.

I just loved doing this program and wouldn't change anything.

I liked least...

Nothing.

Having to bring other kids (sister) in.

Didn't like missing out when I went to hospital.

Ways to improve the program...

Follow-up work with child.

Ongoing support for the child.

Something for the parents to keep coming to after the program is finished. To share. For support.
I wouldn't change anything.

Tiwi parents (mothers) interviewed at Nguiu stressed that they felt the program increased their confidence in dealing with their children's behaviour. They were strongly supportive of the parents' group sessions and asked for these to be continued in some form, for parents only, beyond the length of the program. These mothers were often dealing with stressful household situations, and gained a great deal from talking to each other in the facilitated parents' groups about positive, assertive parental strategies, about issues concerning relations with partners and from sharing their stories. One mother disclosed near the end of the program that she had attempted suicide by hanging two years before when under pressure from demands of her children and the behaviour of her partner. She felt ashamed and remained distressed and emotional about the impact on her children who witnessed the event. This mother was pleased that she trusted the group sufficiently to share this information, which she had not previously discussed outside the family. She expressed that she would very much like to be able to continue to meet to discuss how she was dealing with emotional issues in her family and to continue to receive the support the parents' group provided.

FG: The need to support unwell parents and unhappy children

FG was the second eldest of five siblings. FG presented as shy and withdrawn. The parents reported that they often did not know where he was sleeping and that he wouldn't come home, even when they tried to find him and bring him back. He was often crying and unhappy.

FG's father attended the program a number of times. He was an active, but somewhat shy man, like his son. It was reported that FG and the younger children would often cry when he left to go on hunting expeditions. FG's mother said that father threatened to kill himself if the children would not stop crying. The mother had echoed this strategy, telling the children that the father might go away and not come back if they didn't stop crying.

The young parents were unable to deal with their withdrawn older child. The father's own withdrawal and the two parents' unhappy threats of suicide and abandonment were unsatisfactory aspects of the family situation. Tragically, FG's father died while on a hunting trip. This seemed to confirm for FG that all the father's threats to leave were real and had come true. He and his mother could not continue in the program. He withdrew further and failed to return to school at all for the next school term, playing by himself alone, in the shadows of the house and trees.

Over a year later, the boy's school attendance improved and he was following friends to school. These coping skills were based on peer support. His capacity to deal with school and to learn on an individual basis was probably deeply compromised. His sadness has not been addressed.

Many parents (both Aboriginal and non-Aboriginal) found the work with children in the interactive group taxing although important for the children. They were inclined to see the parents' group discussions as the most rewarding part of the pro-

gram for them, in the case of one group referring to the parenting sessions as ‘*our therapy!*’ Thus overall and in all contexts, parents were with very few exceptions strongly supportive of the program, advocating further follow-up work in some cases, including counselling for general support or for specific issues such as depression or suicidal thoughts, or to deal with spousal issues, as well as for ongoing discussion of management of children’s behaviour. Some parents have actively attempted to maintain contact after the program.

4.2.1 Recognising Unmet Need: Alternative or Additional Strategies?

Although manifesting itself somewhat differently in the Darwin and Tiwi settings, in general, the program elicits important areas of need beyond those of child behaviour management and directly related parenting issues. These include parents’ mental health or wellbeing, as indicated by the analysis of parents’ general psychological distress measured by the Kessler 6, reported above.

It is well established that children’s behaviour may be influenced by, if not a symptomatic response to parental psychopathology (Vostanis et al., 2006; Laucht et al., 1994) and/or concurrent stress in family and marital relationships (Webster-Stratton & Hammond, 1999; Webster-Stratton, 1990).

To draw on examples encountered in the program, a highly anxious child may be responding to continuing anxiety disorder in a parent; another child’s separation issues and behavioural acting out in school might indirectly respond to a parent’s depression; another child’s acting out, defiance and attention seeking seem connected to the arbitrary dominance of his parent’s mood swings, and so on.



Conversely, a parent enduring psychological distress might experience parenting difficulties as a major stress point. In some cases such a parent might find the Let’s Start program to be an indirect, non-threatening way of seeking much needed help for him- or herself. Thus a suicidal parent, clinging to her children and fearful of attracting an involuntary psychiatric intervention, approached Let’s Start as the least threatening avenue of approach for assistance, deflecting attention from her own suicidality, which was clearly the most important issue. In the Tiwi situation, instances of overt parental suicide threats and threats to abandon children have been reported by parents in the parents’ group sessions, while a number of parents have also disclosed marital conflict or serious difficulties with teenage children.

These examples pose a number of challenges. First, can and should parental mental health issues be recognised at referral and parents diverted to other services?

The answer may be that, while for some parents it does become quickly apparent that other services would be of assistance, it is very often all but impossible to recognise such issues early enough and clearly enough to recommend alternatives to Let's Start (should they be available). Even if some parents with evident problems could be screened out and successfully diverted, it is contended that many, if not the majority of such cases will not be excluded and that the program must be able to cope with many instances along the lines described.

The more important question then is whether the team has the capacity and the skills to deal with such issues appropriately within the program, consistent with the program's aims and strategies, and whether processes are available for parents to be encouraged to make use of other services as such needs arise. This often poses a difficult threshold to cross, when parents have established expectations primarily focused on the child's behaviour, and may be defensive about any direct counselling concerning their own mental state – particularly if this means suggesting that psychiatric or specialised counselling services are needed. In any case, except for a very small number of instances of reportable concern, access to any such services is voluntary, so that the team can rarely do more than give such parents advice about where further assistance might be sought.



Similar considerations arise in cases where family functioning appears to be one of the main determinants of child behaviour problems: in Tiwi and some other Indigenous households, this may entail inconsistent parenting responses conditioned by the role of other dependents or relatives in the household, so that children are uncertain about availability of their own parents or are subjected to aggressive or disruptive interventions by these other relatives. These are issues which the group leaders seek to identify and work through during parents' group sessions. There may be instances where the spousal conflict emerges as a key issue for the child and parents alike. As indicated above, both the household issues and the spousal issues are concerns which Tiwi parents have indicated they would like the opportunity to deal with in some further activity, albeit not necessarily including the children. Thus, despite the fact that these issues necessarily form material relevant to group work within Let's Start, it is not likely that they can be fully or adequately resolved by participation in Let's Start alone. Since in most community settings there are no readily accessible services, such as marital counselling, the question arises of whether a group work intervention for parents should be entertained, either as a follow-up service available to Let's Start parents or as a freestanding service in its own right. Consolidation of the early intervention program on the Tiwi islands might make such a strategy a highly desirable option.

In the general Darwin population, somewhat similar issues may arise, although usually revolving around the nuclear family situation. An improved understanding of the child's behaviour very often points to concerns about the parent's wellbeing or functioning, and leaves the team with some concern about the sustainability of improvements observed, if the parent's mental health is not addressed. It may not be possible to promote other services, if a parent has not reached a degree of self-awareness to consider this option for him or herself.

In summary, further development of the Let's Start ETPP model would benefit greatly from improved connection to mental health and other counselling services both through referrals to the program and the screening which would then have occurred, and for referral from the program to benefit parents by enhancing access to other services.

4.3 Group Work Practices

In this section, some key elements of the multi-group format are reviewed with a view to explaining the program's main strategies and clarifying possible lines of program effect.

4.3.1 Interactive Group

The interactive group – taking place during the first 40 to 50 minutes of each session – is a distinctive feature of the Exploring Together Program, in that parent-child interaction is used both as a therapeutic change mechanism and as a framework for learning. It provides access to issues of parenting which can be addressed in the course of the parents' group discussions:

- parents retain responsibility for the behaviour of children
- group leaders facilitate process, initiate activities and orchestrate transitions
- modelling of mediational strategies by group leaders aims at enhancing the parent's interaction with the child to improve responses in the dyad: mediational strategies are ways in which the parents can assist children in tasks, reinforce children's accomplishments, explain and elaborate meanings and so on
- parents and children learn within group, and through interaction with each other
- parent and child experience special time together

Allowing for the fact that parents and children must at first adjust to the group setting, the presence of strangers and uncertainty about what is required of them, it is often surprising that some parents and children find it either difficult to work together and cooperate, or that they seem little used to playing together at all. In some cases, they may simply be unable to gain and retain each other's attention and drift off, either distracted by separate tasks in something like 'parallel play' or distracted by other parents and children in the group. Some parents clearly have

little confidence in their own ability to direct their child's attention, particularly under scrutiny.

Some parents and children sit quite far apart in the group and need to be encouraged to come together. In all these cases, the role of group leaders is to assist parents and children to focus on working together, as far as possible without intruding into their activity or usurping the parents' responsibility for engaging and supporting the child.

Powerful emotions in the interactive group

One father directly asked group leaders what was required, was this program about learning? Should we force the child to pay attention in order to learn? The father thought that schools were not strict enough.

There were soon incidents in which the father reacted to his child's behaviour, on one occasion hitting him, on other occasions verbally 'exploding', punishing him for disobedience in the interactive group by threatening to lock him in his room and withdraw all privileges for a week. These incidents dramatically revealed links between the father's emotional reactions and the child's problem behaviour. There was considerable discussion about related themes in the subsequent parents' group sessions, during which the father was able to at least begin to reconsider his behaviour. He disclosed to the group that, a week after he had made a resolution to his wife that he would not lose his temper, his child had spontaneously reported, 'Daddy, I like it when you don't get angry at me'. He went on to say that the Principal at his son's school had come up to him and said, Mr X, 'I am happy to say that [your son] has not been seen by me once in the last two weeks!'

The interactive group requires that parents remain in charge of their children, and attempt as far as possible to manage their child's behaviour in a manner that is appropriate to them. Of course, this represents a challenge for many parents who are uncertain about expectations. Other key issues – particularly on the Tiwi islands and in similar settings – revolve around the attendance of siblings. This almost invariably produces a reaction in the child, and leads sometimes to naughtiness, clinging, crying or non-compliant behaviour. This provides occasion for parents to discuss strategies for managing sibling rivalry, and to explore how they are able to give each child individual attention in their homes. Parents may find the pressure of competing demands stressful and retreat from the session, or seek to involve other kin to assist with managing children. Some parents have made much stronger efforts to see that siblings did not attend the program.

4.3.2 Children's Group

The children's group is a forum for social learning and development of children's peer social skills; it provides a context for observation of behaviours by group leaders, which is in turn a source of information for the team and enables the development of strategies which can be fed back to parents of individual children. Further, confidentiality must be maintained particularly relating to interactive group work and parents' group discussions. Thus the children's group is the most

important source of information about behaviour management that can be fed back to teachers.

The children's group takes place after the interactive group. This means that the children are also responding to a separation from parents after a period of more or less exciting play with them. As a consequence, managing powerful emotions and excitements and working towards playful cooperation again is usually the first major task of each children's group session. Children with specific challenging behaviours may need concerted attention. The focus overall is on social skills and attunement to feelings and regulation of impulses, using the model Stop-Think-Do (Peterson & Gannoni, 2000). Children in this age range are, of course, highly variable in terms of their developmental attainments and respond to the material with different degrees of understanding.

A key focus is consequence-based learning, in which children must be able to respond to rules and understand consequences of behaviour. Following the ETPP guidelines, therapeutic holding may be employed as the final step in a sequence of consequences for dangerous or inappropriate behaviour in the children's group. This is only done after giving information to parents, demonstrating the holding technique to parents and children, and with parents' written consent. In the absence of consent for holding, other measures must be agreed on. For example, the parent may be brought to take the child under control outside of the room. While this disrupts participation in the parents' discussion group, it does provide the opportunity for intensive focus on management of the behaviour.



Therapeutic holding is discussed with Tiwi parents, in the context of discussion of themes of restraint and of those boundaries or thresholds at which children need to be restrained rather than simply being left to act out their anxieties or reactions in unsupported ways. Some parents wish to see it demonstrated. However, therapeutic holding is not used in that context.

4.3.3 Parents' Group

The parents' group is an opportunity for parents to meet separately from the children to discuss issues around parenting, managing children's behaviour, patterns

of relationship and roles within their families and their own individual wellbeing. The group engages parents in a number of ways:

1. Learning and problem-solving

The group format enables parents to gain information on children's development, age-appropriate behaviour management and causes of typical conduct problems. The program content aims to help parents understand the triggers and consequences of behaviour and to apply consequence-based learning. It provides a framework for discussing appropriate and inappropriate styles of parenting. To some extent the problem-solving focus needs to be guided and limited by group leaders to retain a focus on emotions in their relationship to their children.

2. Reflection on family roles and relationships as the context of parental action and children's behaviour

Parents reflect on how they manage issues, maintain boundaries and expectations, deal with conflict and cooperate with spouse in the family group. Family of origin issues are discussed during later sessions, and enable parents to discuss how they and their partners were raised, how this relates to their parenting and other themes of personal importance.

3. Learning from other parents

A powerful effect of the parents' discussions appears to be that parents recognise that they are not alone in experiencing guilt or shame over their actions as a parent. They thus learn from each other and may feel less isolated, in some cases opening up to further contact with other parents after program end.

4. Therapeutic disclosure and group discussion

Many parents experience personal and emotional difficulty, which may eventually be disclosed in group sessions, often with a positive growth in insight and release of emotion. This may relate to guilt, depression and anxiety or to ongoing difficulties in relationships with spouse or parents. Some families may have experienced bereavement, so that adjustment to loss (death of a spouse or parent) is an important and often unrecognised issue. Adjustments following bereavement sometimes affect child-parent relations in ways that can be brought to light in group discussions. Separation difficulties with children may in fact indicate parental depression or anxiety, acknowledgement of which may see a lessening of anxious preoccupation with the child and a freeing up of the interaction of both.

As discussed elsewhere in this report, a number of parents may have serious personal difficulties or mental health problems which are invariably touched on in the parents' group sessions, but may not be adequately dealt with there. In these cases, discussion of further options for assistance is offered where appropriate. In other cases, as described below, parents make life choices that rule out further assistance for the time being. In some cases, spousal conflict may be a theme that can be constructively discussed in the parents' group. However, in almost all cases of extreme, recent or ongoing spousal violence, the prospects for benefit from participation in the program, and indeed for program completion, are reduced.

The challenge for group leaders in the parents' group is to encourage reflection on important emotional and relational themes, without adopting an overly didactic or 'problem-focused' approach. At the same time individual parents often vary widely in their styles of relating to others and contributions must be managed in such a way as to allow the group to form and become an active agent in disclosure and cooperation. Some parents may be somewhat defensive about the prospects of any disclosure to the group and will only respond to patient, non-coercive group leadership styles. Other parents may clash with each other over issues of parenting, with serious consequences for the participation of either. Group leaders must be able to work through these issues in discussion without confrontation of individual parents, but also without 'papering things over'.

As already discussed, on the Tiwi islands and in similar settings, traditional avoidance relationships between people in the relationship of brothers and sisters or son-in-law mother-in-law may set powerful limits on the ability of some groups to function. A man may often not willingly be in a room with the spouses of certain other men. For example, even in a case in which a man attended the program and other participants stated that there was no relationship barrier to his participation, his actual participation was relaxed only for the interactive group sessions; in the parents' group sessions, conversation was awkward, with some women sitting in earshot, but just outside the door and the conversation generally restricted and functioning best when parents spoke individually to group leaders, rather than addressing the group as a whole. He attended only about three of these sessions. Another Tiwi father attended the program with his son almost every week, but always 'disappeared' after the interactive group to avoid the parents' group discussions. Thus Indigenous communication styles and etiquette in mixed company may not favour the style of collaborative work which the parents' group requires.

While these difficulties could in some respects be resolved by allowing spouses to attend the program together, this would compromise the effectiveness of parenting group sessions for individual parents in the terms described. It is discouraged, unless it cannot on a given day be avoided. If a father attends with the mother, it is often the case that he first participates in the interactive group, then joining the children's group for the second part of the session, while the mother continues to participate in the parents' group. In general, on the Tiwi islands, it has been found that the program best resolves these issues by targeting mothers or female caregivers as the attending caregiver, while making specific provision for fathers to attend combined activities at two to three points during the program.

Overall, fathers have been only intermittently engaged in the Tiwi program. Partner evenings, as in the original Exploring Together model and involving discussion of program aims and the referred child's behaviours have not been held. Group meetings for fathers or male carers of participating children were held on two occasions per program as part of a strategy to more consistently engage fathers. Attendance of fathers is often an indicator of interest and sometimes gives the group leaders some insight into family or couple issues, and when fathers attend, it often has a positive effect on the child's behaviour. Given the high propor-

tion of male children referred to the program, consideration of additional strategies to engage fathers is recommended.

4.4 Case Studies and Key Themes

4.4.1 Attendance, Child Behaviour and Transition to School

Attendance of children at school is a complex issue. For many teachers of students in urban special leases, for example, poor attendance was a key issue underpinning referral to the Let's Start program. This is often an indication that children and parents may also be unlikely to attend the full 10-week program. Irregular attendance of children at school may reflect a combination of the child's active non-compliance with parental demands and parental reluctance to assert control; this may occur in communities or families under stress. Parents of Indigenous children may deal with non-compliance and other difficulties by allowing the child to move to other caregivers when there is dispute.

Thus in the case of BB, an Indigenous girl living with her stepmother in a special lease community, reluctance to be 'pushed' into going to school reflected an established pattern of independence and non-compliance, combined with the difficulties fitting in and interacting with peers, where she would show signs of irritability and frustration. BB would get up, walk off to a house over the road and refuse to return home to dress for school. She was often up all night watching the heavy drinking

BB: Attendance and non-compliance in an urban community

BB lives in a small Indigenous housing lease with her stepmother, her mother's sister, not far from central Darwin. Their family comes from a mainland Aboriginal community about 300 kilometers from Darwin, but they have lived on the special lease for many years. Referral information indicated attendance problems, non-compliance and peer problems when at school.

At school, BB is bright, a little aggressive. She wants to play with the other children but has difficulty mixing with her peers. This pattern was also illustrated in the children's group sessions: for example, during the second program session, she was excited with the activity, happy. She went to hug one of the boys so that he drew away from her. She then became irritable and no longer wanted to join in.

At seven in the morning, the Let's Start vehicle arrives. BB comes outside, half-dressed and walks off to another house and sits with some people already out on their porch. Her foster-mother (mother's sister) appears to have given up trying to talk her into coming home, dressing and going to school. Her only hope is that she can link her up with some other children who might tempt her to tag along, so she waits to see if the neighbours' children can be tempted to dress and come along. However, there is no one to help the next door children get ready today. Her stepmother puts up with BB during the day, but lets her wander off. During the times they attended the program, she said that when BB has been up late watching the drinking and fighting next door, she is then not in a mood to go to school. She wants us to set up the program for kids and parents from their area, so that they can work as a team and get BB going to the program and to school. However, after four weeks, there are more visitors in BB's house. Her foster-mother is now looking after some younger children. They withdraw from the program. BB's school attendance remained a problem.

and fighting next door, and the children next door were frequently not got ready for school on time, so there was little chance for families to cooperate and for the children to go to school as a group. In another special lease community, one mother complained that her son K. was already so independent, that he would sleep with friends in other households when he wished, and refuse to take any direction from her, running away if she growled at him for any reason. Like BB's stepmother, she had other children to care for and so had limited capacities to deal with her son's behaviour.

Among children commencing the program, qualitative analysis of their attendance difficulties reflected a number of themes.

1. The child's social-emotional development

Attendance is often bound up with the child's inability to cope with the classroom and school generally: this may include the social dimension of interaction with peers and fear of schoolmates' aggressive or disruptive behaviour and difficulty following directions given by the teacher, responding to questions, concentrating and taking direction.

BF: Parenting, attachment and school difficulties

BF is withdrawn and plays by himself. He rolls on the floor, goes behind furniture, refuses to join in when asked. He can't reply in words to the group leaders; he nods and blinks in response to them. He alternates between excited expectation and angry withdrawal: he smiles, he makes puppet faces, he plays in the games. Then, another child is given praise by a group leader, so BF immediately gives up; his puppets end up broken between his fingers and on the floor. In other games, he can't cope with uncertainty about getting attention and withdraws, playing angrily with a toy under the table, refusing to respond to any attempt to have him join back in. The group leader looks back to see BF's face excited, expectant, wanting to win a game: another boy wins, so BF runs and hides under the table.

BF's mother is disengaged. If he withdraws, she lets him. She withdraws behind the new baby and tries to fend BF off when he wants her attention. BF has a kind of unconnected time next to her without any direct interest or mediation by her. They struggle to synchronise any communication and argue and get angry with each other. When he crawls under furniture or angrily sits in a corner hitting things she walks off and ignores him.

BF attended the program over two school terms. After attending around six weeks of the first program, he just appeared at the door at the beginning of the next term's program, and indicated that he wanted the team leaders to fetch his mother. During the second program, his mother clearly became more responsive to him; she would sometimes ignore the baby in order to play with BF or to talk to him when he addressed her. When he started to cry, she got up and moved to him and put her arm around him, letting him lay in her lap. This appeared to be spontaneous. She reported that BF threatened suicide in response to teasing by his father. This indicated that she was increasingly attuned to his communications of distress. However, there was a 'relapse' during which the mother reported hitting him, when he cried and refused to go into school. She discussed her fear that she would be reported to welfare officers and that he would be taken away again.

BF and his mother completed the program. Both were much happier and more relaxed in each other's company. He was helping her, even with the baby. He would now talk in a firm clear voice when addressed by an adult. He no longer cried if the group leaders paid attention to another child, but would wait his turn. When the group leaders went to pick him up at the classroom, he was found happily helping the teacher, carrying a box, joining in with other children, smiling. The attendance difficulties and the clinging to his mother, the crying and refusal to attend school were no longer a problem.

2. Responsibility for the child within different family systems

Some patterns of shared adult responsibility may allow the child to avoid attending school.

3. Interaction between the child's and parent's emotional needs

For example, parental illness or psychological distress may produce anxiety about separation from a child, that is expressed in concern for the child's wellbeing and may even lead to his or her withdrawal from school.

4. Stressors and reactions to stress

Emergencies, death and conflict in family and small community life frequently 'sacrifice' the child's attendance at school.

5. Social background

Some children living in small communities, such as urban housing leases, may have very limited experience of interaction with people from other ethnic and social backgrounds, and their parents may be unable to engage confidently with other parents or with teachers.

A number of these factors may be at work in any one case.

4.4.2 Children's Behaviour

The distinction is often made in the intervention literature between 'externalising' and 'internalising' behaviours, and their social outcomes (Littlefield et al., 2005). Among participants in Let's Start ETPP, groups typically contain children who act

PP: Distractibility, teasing and acting out

PP was referred for inattentiveness, distractibility, fighting, crying and running away; the teachers said that he couldn't concentrate or do any work at all. In the program, he could not sit still. He was nervous and anxious; he would run around and playfully hit little children, grab them and try to carry them. He would respond to every bump by other boys with a punch. Parents cried out in frustration; no one it seemed had the means to have him sit, listen, wait.

Teachers had minimal or no strategies to engage PP. When the group leaders went to class to fetch the children, the teacher (non-Indigenous, newly commenced) did not know where he was. She complained that he wasn't attending during that term. Then the other children pointed him out: he was there after all, lying under a table, crying and unhappy. He went with the group leaders to the program. PP was thin, seemingly often unhealthy, with sores; one day he had conjunctivitis from sand thrown into his eyes by other children. His mother was assisted by group leaders to seek treatment for him more than once.

In the interactive group, PP's mother was often distressed at his inattentiveness, his over-reactivity and inability to listen. However, PP eventually responded to the exercises requiring him to work with her on tasks. The secure containment provided by the group appeared to contribute to reduced anxiety. Eventually, PP became interested in the work and was increasingly able to carry out some tasks with his mother. In the final weeks, children and parents collected materials to make a collage. PP collected pieces of paper, sticks and twigs. He was careful in his choices, knew what he wanted. He made a complex image of the mangroves and an abstract crocodile. He refused help, became intent on the work and executed his own design from start to finish over 20 minutes. His concentration had greatly improved. He had shown that in the right environment, he could calm himself, and could 'do work'.

out their emotional reactions, and children who withdraw and suppress their reactions and are shy, timid or uncommunicative. They have somewhat different antecedents in terms of parenting and family attributes, tend to encounter the transition to school differently and respond to the intervention program in different ways. The following examples indicate some scenarios.

On the Tiwi islands, in an early program, there was a group of children who all had difficulties with the requirements of their classrooms; they were fearful, shy and struggling to make the transition to school. This included BF, who was referred for hitting, fighting, crying and frequent running away. He had been until recently 'under welfare' (in a foster care placement supervised by NT DHF) for parental neglect or violence towards the children. His mother referred to herself as an 'anger woman' in the past. At the time BF was referred, she had a new baby and attended a domestic violence course with BF's father.

In the case of BF, the mechanism for improvement described above seemed to have been the consistency of attention given by group leaders to him and to his mother. This was reliable, and above all helped his mother to become more responsive to him. In effect, it restored some reciprocity in their relationship, creating a fairer balance between regard for him and preoccupation with the baby. Given the history of neglect, this was a case of relationship repair, facilitated by participation in the program.

In a number of cases, Tiwi teachers have referred children who are hyperactive or distractible, often teasing and fighting with other children in class. This is one of the frequent causes for referral to the Tiwi program for boys. These children tend to be 'externalisers', who act out and impinge on others as a means of dealing with anxieties and expressing emotions. Some may also be withdrawn children who act out in response to provocation. They act impulsively, highly attuned to the teasing and talk of peers and reacting to even slight stimuli around them. They are called a 'nuisance' by parents, who show little ability to exert control. They annoy little children by grabbing them, pinching them, carrying them roughly around. They are almost always being shouted at by adults. Although their reactivity and attention seeking suggests an anger at parental non-response and unfair punishment or neglect, their responses only succeed in provoking more and more aggressive responses from those around them. They have difficulty with concentration in school. This is illustrated in the case of PP, who was referred for inattention, distractibility, fighting, crying and running away. The teachers said that he couldn't concentrate or do any work at all.

Both BF and PP showed externalising tendencies, albeit combined with tendencies to withdrawal, and they would both react aggressively in response to even unintended provocation by peers. In both cases, the boys were vulnerable to some degree of ongoing risk conditioned by their family situations.

Many children who act out, provoke, are called a 'nuisance' and don't listen or pay attention, are almost constantly shouted at by parents, aunts or uncles, or are being

punched by older children and teased by adults and children alike; they are constantly provoking response and running away. For these children, the primary work of the program is to provide the reward of consistent attention and to establish predictable boundaries via turn-taking in the group, as it were, giving everyone a chance. The aim is to dampen not only the children's reactivity and impulsivity, but also to dampen the reactivity of adults. Creating time and space in the interactive group for parent and child each to reclaim the attention of the other, without interference, to learn to control reactions and to deal with frustration is a powerful intervention. It can enable the child to express and the parent to understand the sense of injustice or the need for attention that the child's behaviour reflects.

An important limit of the current program to help such children may be that, to stabilise gains, it may be desirable for program exposure to be over a longer time than the 10 weeks currently available. As always, prospects of relapse are conditioned by factors in family life that are not easily changed unless the parent gains a clear sense of purpose. For example, to reduce the amount of teasing, shouting and growling to which the child is exposed may mean that the parent has to assert him or herself to do more for the child and at the same time to reduce the arbitrary interventions of many other people in the family group. This is not easy. There are many influences that can undermine a parent's confidence to sustain change.

However, while children who act out and show anger or non-compliance are most common among male referrals to the program, other Tiwi children referred are much more significantly shy or withdrawn, uncommunicative and fearful. For

SW: Shyness and working without words

While SW was able to carry out tasks together with her mother, she was extremely inhibited in her participation. She was not able to speak to anyone other than mother, and could not ask the other children for things, glue, scissors, etc. During activity, such as singing or dancing, she would hide behind her mother and would not join in. She could often be observed imitating the hand movements of the other children (e.g. clapping), but when eyes turned to her she would turn away or stop moving altogether. The mother – herself a quiet woman – used powerful non-verbal controls based on physical proximity to direct SW's attention.

During the children's group, she showed increasing interest in joining in activity. However she could not communicate her wishes verbally. The group leader showed her how to use signs to ask and to reply to others, not allowing her to just grab at things when she wanted to join in a task. She would sign and use facial expressions and generally became more engaged and communicated actively when wanting to participate. This increasing communicativeness transferred to the interactive group to a limited extent. Towards the end of the program, there was an excursion in the van. SW happily went along, holding the hand of the non-Tiwi group leader and returning a half hour later. Her confidence had grown significantly, although she still used non-verbal communication to express her wishes.

During the final session, there was full attendance in the interactive group and some loud singing by around 15 people. SW retreated again during that session, clearly scared by the large group, the movement, the activity, the attention-seeking on all sides. It was clear that she had been unable to cope with the shift from preschool to the larger group of the transition year class. The team's recommendation to the mother and to the teachers was that they explore the possibility that SW return to preschool for the remainder of the year, and that the mother spend a half hour each morning with her in class before trying to leave. Otherwise, it was likely that SW would not be secure enough to attend school for some time – perhaps until she was six or seven.

example, a little girl called SW was a member of a family of very quiet, shy people. Some years before, SW's uncle had been in the 10-week Ngaripirriga'ajirri program for primary school children, and did not say a word throughout. SW was referred to the program, because she would no longer go to her transition class, despite the efforts of her mother who would sit in the class with her and then try to leave, only to have SW cry and want to leave with her. She followed her mother everywhere, with her two younger brothers. Her mother attended the program with her and with the two little boys, but was able direct her attention to SW. SW's grandmother sometimes came to look after the boys. SW's mother was very capable, but was struggling to deal with the developmental needs of three children. She lived apart from the children's father, and the separation was apparently becoming permanent.

In the case of all of the Tiwi children just discussed, Let's Start has shown that children vulnerable to ongoing family difficulties, like PP and BF, and children with developmental needs that make first experiences of school difficult, like SW, can be helped to make the transition through preschool and early primary school by ongoing community-based support that works both with their schools and with their families, that can provide support for parents dealing with difficulties at home, and that help strengthen the confidence of child and parent in each other.

It may be difficult for parents to respond to a withdrawn child who is one of a group of siblings. This was the case with a Tiwi boy, called FG in a vignette above. He attended with his mother, who almost always brought along two younger siblings. His father came to the program now and again with his mother. The parents did begin to become aware that there was an interaction between FG's lively, externalising younger brother's behaviour and FG's withdrawals – as though this was the older boy's strategy for competing for the parents' attention. Sustained effort to attune the father to his son's needs and to encourage him to engage him in activities, might have been of benefit. The unhappy father's own emotional retreats and withdrawals, his threats of suicide and the mother's threats of abandonment in the father's name were unsatisfactory aspects of FG's family situation. The father's tragic death in the middle of this child's participation in the program must have seemed to confirm to FG that all the threats had come true. After his father's death, the child withdrew further and failed to return to school for at least the next two school terms. He could be seen by himself riding a bicycle around the parents' empty house almost the whole day. Although by then he was over six years old, group leaders sought to negotiate with the mother to have him return to the program. Unfortunately, this did not come about due to timing of delivery of the program in the Tiwi communities.

By the age of seven, FG's school attendance picked up and he was following friends to school, seemingly much happier. However, it must be understood that by then, he was coping with school on the basis of growing ability to gain and make use of peer support, and that his capacity to learn at school on an individual basis had probably been deeply compromised. The same is likely to be true for SW. She is by now, at seven years old, able to attend school with her friends. However, the

question is then whether she is able to make up any ground in academic terms. This is not uncommon: during one round of consultations about referral in the same community, a group of children was identified that included four boys, all from six to seven years of age, who had barely attended school at all before then and were still at that age only in grade one. This is a consequence of failing to address the issues underlying children's attendance at preschool and the transition to the first year of school – as early as possible.

As in the case of SW and FG, shy and withdrawn children may become even more withdrawn and fearful in response to difficulties of the parents. In SW's case, this was possibly related to the separation of her parents, in the case of FG, to the father's emotional distress. However, if these children's behaviour reacts to stresses or tensions in the family group, it is often not obvious; the triggers cannot always be easily identified.

Children manifesting withdrawn and internalising behaviours rarely respond solely to behavioural controls, and even if coerced into attending, may not positively engage with the school environment. It seems likely that programs of support for parent and child can help to deal with these sources of difficulty: addressing social-emotional challenges, building confidence and communicative competence is a prerequisite for some children being able to be in a position to tolerate the school environment and to learn while there.

All the children described above had difficulty negotiating the transition from preschool through to transition and grade one. There was a range of different issues at home and in their individual development affecting their confidence and capacity to communicate, concentrate, understand and follow tasks. In some cases, like SW and FG, the children are unable to interact confidently with peers, accept the noise and bustle of the classroom and cope with the competition for attention. All of the variants described, including cases implying a possibility of neglect, as with BB, BF and PP, illustrate that children can benefit from support during this important phase. In all the latter cases, school attendance lapsed when the parent withdrew from the child, 'gave up' trying to take him or her to school, or allowed their child to pursue an alternative, such as following siblings, grandparents or other kin during the day. The experience of Let's Start suggests that there is a need for active, community-based strategies to engage and assist parents who, for a range of reasons were not able to effectively support the children to separate and to deal with the demands of the school environment.

The situation of children who, like BB, live in special leases in suburban Darwin has some similarities with that of the Tiwi children, in terms of family structures and to some extent language and culture, but with an important difference: they have to cope socially with a mixed school environment of children from quite different ethnic and linguistic backgrounds, compounding their anxieties about fitting in. Their parents are also less confident in dealing with non-Aboriginal teachers under the scrutiny of people from other backgrounds. While, given the apparent underlying difficulties, the Let's Start program seems to have significant potential

to assist these children through the transition to school, it is largely the barriers to parental participation in the program that have to date prevented children from benefiting from it.

By contrast, the situation of parents and children in the general intake program (including some participating Aboriginal families) is quite different: non-attendance at school is simply not an option for most children. Consequently, children's reactions to separation and the anxieties experienced during the transition to school are played out at school. This in turn is often linked with parents' concern that the school is not managing their child appropriately, perhaps to their anger and distress at being spoken to by teachers about their child, or to an anxious search for treatments for the child.

While current policies aiming to enforce compulsory school attendance are defensible, they are not by themselves a solution to the problems outlined here. The parents encountered in the Tiwi program and the Darwin special leases can benefit from some assistance to deal with many issues in their lives, from basic parenting and behaviour management through to dealing with adult family roles and, lastly, the often serious emotional issues of the parents themselves. The current drive to enforce school attendance – which, for example, the Tiwi leadership has embraced – may compound problems in the schoolroom if there are no strategies aiming to improve teachers' or parents' capacity to support children to cope, learn and grow.

4.4.3 Parental Emotional Difficulties and Children's Behaviour

As indicated elsewhere in the report, and as will already be apparent from the preceding cases, parental emotional difficulties are often the most serious issue, if not the principal determinant underlying the behaviour for which a child is referred to the program (Gross et al., 2008). This is true both in remote Indigenous communities and in Darwin for Indigenous and non-Indigenous people. There can be a complex relationship between parent's emotional difficulties and the adjustment difficulties of the child.

On the Tiwi islands, parental mental health issues are almost always co-mingled with instabilities and fragmentation in the family process, which sees children more likely to be avoiding situations of distress by making use of other kin, withdrawing or re-attaching. The as it were 'functional' solution involves flight and relocation of the child. These patterns of response to difficulty can make it difficult for group leaders to achieve a clear grasp of parental psychopathology. Nevertheless, in many cases, the parent's emotional difficulty is quite evident, with a large influence on the child's behaviour, and often to the detriment of the child's attendance at school.

In the general intake program, parental mental health issues are also very often evident. However, within comparatively rigidly integrated small family systems the functional outcome is likely to see the child either enlisted in support of the parent's wellbeing or indirectly subjected to parental difficulty, by virtue of coer-

cive or defensive patterns of family interaction. In numerous cases, non-Indigenous children's behaviour reflected a high degree of enmeshment with parental anxieties and emotions. In one case, mother admitted to experiencing a serious anxiety disorder cause by a traumatic event. She suggested that her child suffered from the same disorder, also caused by a separate traumatic event: anxious mother was accompanied by anxious, hypervigilant child. In another, a suicidal parent attended the program, ostensibly to assist her child whom she taught at home, but in reality to achieve support for herself: it became clear that her family was rallying to help this quite unwell mother, and the referred daughter's difficulties reflected her struggle to cope with this complex family situation. In the case of the 'explosive' father described earlier, the father would spoil and cuddle his son and then explosively react to the boy's attention-seeking; his son would seek the desired attention and indulgence and run the risk that in so doing he would infringe his father's volatile moods.

CH: Parent's and children's adjustment at home and school

CH was a non-Indigenous boy of almost seven years who lived with his mother, June and had recently moved to town from a cattle station. CH's father remained away, spending little time with the family. CH had been home schooled until recent unsuccessful attempts to send him to a remote school.

The referral was made by CH's school after assessment by a psychologist who diagnosed severe anxiety disorder. He suffered from food allergies and when unwell rapidly lost weight. The school's plan was to introduce CH to full time mainstream schooling with the assistance of a number of strategies:

- mother being present at school for a period of time
- a mobile phone for use to call his mother
- an ISA to support in periods of Lyn's absence
- attendance at Let's Start

CH and June arrived early to Let's Start for most sessions. CH presented with some fears and anxiety, however despite some small signs of anxiety while separating from his mother from the interactive group to the children's group, CH participated with relative ease, not once asking to see his mother or use his mobile phone to call her. However, June's anxiety was evident; she needed reassurance that CH could cope with the separation. Although CH began to attend school regularly, adapted to the school routine, formed relationships with staff and peers, June struggled. She would call the school to check on CH during the school day and would walk or drive around the school perimeter.

In the parent group June divulged her 'family of origin' history and the impact of this on her – June had two disabled siblings and a brother who died at eight months of age. She said that she struggled with anxiety, panic attacks and depression. However, June was able to demonstrate a high level of insight into how her own difficulties may affect CH. She reported feelings of success after planning for separation:

- having CH spend time with his father on the station over the weekend; CH took his mobile phone and only called twice
- sending CH to his grandparents interstate. Originally June planned a three-week visit; after the first week CH returned for a few nights, but returned for the remaining two weeks

After these successes, at six-months' follow-up, CH had been withdrawn from the school for home schooling with mother who was planning to move back to the cattle station. This did not necessarily signal retreat from gains during the program: CH would miss out on the benefits of learning with peers at a school, unless there are alternative opportunities at the station; how-

The only cases of non-attendance at school for children seen in the general intake program were a result of parental withdrawal of the child from school, ostensibly for home schooling, but seemingly to satisfy parental emotional needs. Home schooling may represent a situation in which parental separation anxieties, neediness or depression affect not only the parent's perceptions of the child's needs, but become a serious source of inhibition for the child. The parent's difficulties may mean that they over-react to the difficulties of their child with unnecessary concern, underestimating the child's capacity to adjust, as in the case of CH and June. In addition, there may be a complex combination of emotional distress in one parent combined with threats of marital break-up, with consequences for the child's adjustment.

Parents' emotional state is also closely related to retention in or early drop-out from the program. In summary, it should be clear that not all cases of failure to complete the program to the end are due to lack of ability to engage parents by the program: some cases make clear that, after making difficult emotional disclosures, parents may withdraw to re-establish emotional boundaries. Ending the program can be difficult for both group leaders and parents or children, as some cases make clear. Parents may leave early, perhaps in part to avoid the ending process. In other cases, parents under strain respond to situations of urgency or make life choices that prevent ongoing participation in the program.

Numerous cases have revealed that parents presenting to Let's Start on the basis of referral of their children are in serious need of support for themselves. It is not always possible to reach a high level of understanding of those needs during the program. However, if anything this demonstrates very clearly the need for a program that can address concerns about parental difficulty *as well as* respond to children's behaviour both at school and home. Even where the child's symptomatic behaviour reflects past developmental difficulties, including past neglect, it almost certainly also expresses difficulty in the current ecology of relationships, most importantly in the relationships of their parents.

4.4.4 Social Support for Parents and Families with Special Needs

In numerous other cases in the general intake program, parents show no overt mental health or emotional issues of their own, but are struggling to cope with a child about whom they have serious concerns. The strategies in group work for such parents may be quite different than for those in which the attending parent is clearly suffering emotional difficulty. However, there are invariably issues of family function, including the role of the non-attending spouse, that affect the ability of a parent to cope.

JJ was a non-Indigenous boy of just over four years, but was bigger than many six year olds. He had experienced global developmental delay, most evident in his underdeveloped language use. He was very lively and enthusiastic and learned to play with the other children in the group, watching, imitating, following. His mother was highly attuned to his needs, and worked very hard to get him profes-

sional support. She complained that, because of his size, many adults expected the behavioural control, responsiveness and social skills of a six year old, and that she was often criticised by older women for not controlling him adequately. The mother reported that JJ's father was often too embarrassed to walk together with them: when they went shopping, he would walk away to one side. At home she said that they played together, but descriptions of this play suggested that the father merely left JJ to do things without too much supervision. It was as though he were having difficulty accepting that JJ could not function at the same level of other children. This family lived in social isolation, the parents working alternately night and day shifts, staying in very small mobile accommodation.

One of the most important achievements within the program was contact between JJ's mother and other mothers. One mother, newly arrived in Darwin, whose husband was absent overseas for long periods, befriended JJ's mother and the two got together outside the program on a number of occasions and continued their contact after program end. In the case of both parents, the clear benefit of the program for them was in encouraging strategies to overcome social isolation and seek support from each other while continuing to meet the special needs of their children.

In other cases, parents find similar social and psychological support through being able to disclose personal difficulties in the company of other parents. Thus at the last session of a program on the Tiwi islands, a mother revealed, tearfully and emotionally that she had once made a dramatic threat to hang herself, placing a rope around her neck in front of her five children. She said that she was ashamed and continues to live with guilt about the impact this has had on her children, burdening them with worry for her. She revealed that she had never shared this story with anyone before, but that she could do so because of her trust in the other mothers and the group leaders. She went on to acknowledge how much benefit she found in sharing stories of being a parent with the others. Being supported by other parents having similar experiences was important. Both the parents suggested that they wanted an ongoing parents' group, to help parents work on strategies to manage their children's difficult behaviours and deal with family pressures in a supportive environment. Although the time with their children in the interactive group was seen as positive and valuable, providing a space for these parents to deal with the emotional issues that impact on their parenting was their strongest need.

The cases presented here indicate that both parents and children referred to Let's Start often have complex and multiple needs, and that there are many pathways through which the program goes some way towards catalysing constructive change, very often in the parent's own practices, conduct, or sense of confidence and wellbeing. Operating within the professional boundaries described by the program, responsive group leaders are able to work through the immediate practical activities of the program on a week-to-week basis and at the same time take steps to ensure that there is appropriate termination. Sometimes important work is done in the final consultation with parents at program end. Other important work occurs between the parents themselves as they discover the benefits of mutual recognition and support that may persist after the end of the program.

5. Conclusions: Evidence and Effectiveness

5.1 Program Outcomes and Adaptation

Let's Start was implemented to trial the effectiveness of an intervention for children based on the Exploring Together Preschool Program for Indigenous and other parents in the Northern Territory. Establishing the program necessitated building a service from the ground up, engaging principals and teachers in schools and other practitioners able to contribute to the program, and establishing contact with parents in widely disparate contexts.

The program underwent some degree of adaptation to facilitate engagement of Indigenous parents and children, and some adaptation of content to focus more clearly on developmental needs of Indigenous children and the concerns and understandings of their parents. The structure has proven flexible enough to allow for modification without abandoning the core focus of the three elements of group work that comprise the intervention. The program has been shown to provide a framework that can be made responsive to specific local contexts and cultures.

However, the findings of our research to date give rise to questions about the effectiveness of the intervention in its current form for all client groups and about the conditions of sustainability of evidence-based programs like ETPP. In these conclusions, we review some key lessons and go on to consider the need for program redesign with a view to ongoing research to answer two sets of questions: about effectiveness and about sustainability.

The aims of the program were to reduce levels of problem behaviour and associated risk among children referred from diverse sources, and in parallel to achieve improvements in parenting and parental confidence expressed in parents' interaction with their children. The evaluation of outcomes entailed measuring changes in a repeated measures design, using both standardised and purpose-built instruments. The evaluation was subject to constraints as the effort of achieving program set-up for delivery of services and the uneven intake process took precedence over research design. Thus wait-list control groups originally intended were not achieved. Such controls are necessary if the research is to provide definitive evidence of program effectiveness, to ensure that program-derived gains can be differentiated from general developmental maturation, and specific treatment effects from the effects of total program engagement, and should be a feature of further research and evaluation. Further tests of the effectiveness of an intervention like Let's Start ETPP will require both the ability to sustain the intervention program in different contexts along with the key elements of research design with controls. The findings of this report give an indication of what the important questions of such research should be.

5.1.1 Children's Behaviour and Parenting

Despite the study limitations, the program demonstrated clearly positive outcomes. These include statistically significant reductions in problem and risk behaviour among participating children, according to multiple measures, with substantial effect sizes registered six months after program completion. Moreover, these declines in problem/risk behaviour occurred both at home and at school. Evidence of a positive dose-response confirms the likelihood of a treatment effect. Direct observation – currently being tested by further analysis of observational data – suggests that there are reductions in anxiety on the part of the child, reductions in aversive parenting, improved reciprocal responsiveness between parent and child and improved parental confidence or assertiveness.

Benefits to children appear to flow both from (a) the experience of direct interaction with a parent (without competition for attention from other family members, siblings, etc) in the interactive group sessions, (b) modelling of interactions with adults in a classroom-like situation, and (c) supervised play which facilitates self control in peer relationships. Although there were strong improvements overall, there were differential outcomes for boys and girls and for Indigenous and non-Indigenous children, with Indigenous girls and non-Indigenous boys showing the strongest gains. Further analysis of the profile of children's presenting problems may help to illuminate questions of treatment effect for specific subgroups of children grouped by gender and Indigenous status, if for example, it can be shown whether different outcomes are associated with different presenting profiles, or, conversely, with different patterns of response to treatment for the same presenting problem.

The evaluation has also measured aspects of parenting and parental response to the program. There were strongly significant improvements in parents' K6 scores, indicating significant reductions of parental psychological distress. Changes in parenting, in parental confidence and wellbeing are likely to be central change mechanisms in the Let's Start ETPP intervention model. Case analysis suggests that parents benefit from the program in a number of ways: (a) reductions in anxiety overall, and in reactivity or withdrawal in response to child behaviour; (b) increased confidence and assertiveness, both in terms of parenting strategies and in terms of managing household or family issues that impinge on parent and children; (c) improved understanding of common developmental problems. Case studies also clearly indicate that parental mental health problems are a major cause of behavioural problems for some children in the program, and are frequently an underlying albeit usually unacknowledged motive for parental attendance at the program. The reflective interactions of the parents' group entail both direct reflection on interaction with the child, and group discussion of emotional themes and family issues with other parents, and appear to give parents a feeling that they are 'not alone', leading to reductions in guilt and shame, and development of insight which may be of considerable therapeutic value from case to case. Within the limits of its format, the program has thus demonstrated clear potential as an intervention to support improvements in parental mental health. Based on strongly positive

parental feedback, it is a service that has high acceptability for those parents who may be concerned to support their child, but as yet do not have an awareness of their own personal need for support.

It is not possible to test some of the change mechanisms hypothesised above without further research based on revised research design and methodology and revision of the intervention model. There are promising lines of investigation suggested by the differential outcomes for boys and girls from different cultural and social backgrounds. In terms of the intervention, this includes adjusting the nature of participation by parents: would the participation of fathers or male significant others produce a better outcome for some boys at this stage of their development? Many Tiwi mothers would say so, but engagement of the children's fathers has proven elusive. *In summary, a number of important explanatory questions about patterns of child development and behaviour and their links with observed patterns of parent-child interaction warrant further investigation. This should occur in conjunction with research about appropriate targets and processes of intervention.*

5.1.2 A School-based Program: Support for the Transition to School

Recent debates about Indigenous education have highlighted non-attendance at school. In a number of Indigenous community settings, teachers interviewed were concerned to point out that the issues behind children's non-attendance at school will not be satisfactorily addressed by coercive school attendance strategies alone and that programs dealing with underlying issues of parenting and family functioning were needed to support children's early (and later) engagement with school.

The improvements in classroom behaviour registered by teachers suggest that early intervention can make a significant contribution to enhancement of the transition to school for many children. There were case-by-case indications that some Indigenous parents became more able to support their children's attendance at school. Further analysis of the link between attendance patterns and presenting behaviour problems of children is to be undertaken. However, it has become clear that children in different family and community settings encounter the transition to school quite differently. In the general community setting in nuclear households of usually employed, literate parents, children's non-attendance at school is less often an issue. On the other hand, in the Tiwi islands and in some urban fringe settings, school attendance is less firmly supported by family routine and expectations, and the parents' response to the child's reactions – separation anxiety, non-compliance, shyness, school refusal – is often to accede to the child's reluctance to attend, despite the parents' frustration and unhappiness about this.

It was found that in some circumstances – as in the cases described on the Tiwi islands – children do not have sufficient time in preschool to prepare them for the larger classrooms of transition and grade one, and that these children react with shyness and withdrawal, refusing to allow parents to leave them in class, sometimes refusing to stay in class at all. For these children, a program like Let's Start

cannot replace adequate preschool experience, but can help provide an important additional support, not the least significant component of which is the sensitisation of the parent to the child's fears of being overwhelmed in a large classroom with unfamiliar task requirements. The interactive group provides an opportunity for the parent to give the child special attention as against the claims of younger siblings who normally stay home with mother when the child is expected to go to school. This can increase the child's confidence and the parent's ability to negotiate separation – provided the parent herself can separate from the younger siblings. (The Let's Start approach has been to make use of available childcare facilities to assist parents with this.) The resonance of the interactive group with the schoolroom setting – with the difference that there are parents present – may well be an important element of its capacity to reduce anxiety for the child in a way that transfers to the classroom.

The cases outlined here indirectly show that schools are not well adapted to dealing with the developmental needs of all children, nor with many of the issues underlying erratic attendance or difficult behaviour. Teachers often feel unable to reach out to assist parents and families to deal with these issues. The Let's Start ETPP program focuses on parenting with the aim of improving parental support for children's social-emotional learning. However, the focus on parental or child difficulties that is at the core of the Let's Start approach to the issue of school readiness cannot be defined in terms of children's or families' deficits or needs alone. *The partnership to support children must be a two-way one, with schools reaching out to families by using supportive programs and strengthening the collaboration needed to sustain the program activity.*

5.1.3 Improving Engagement and Retention

Retention of parents – particularly Indigenous parents – and their children in an early intervention program is clearly a challenge. Some of the determining factors may be within the control of the program designers and developers, while some are not. Let's Start ETPP necessarily seeks to work with a high proportion of persons who are not active service users, who are shy and reluctant to seek external help, who may be illiterate with few personal resources and supports and who experience multiple sources of difficulty. On numerous occasions successful delivery of the full program was rendered impossible by events affecting one or more participants. These are community contexts of high stress and risk in which any program of work with families will encounter complex intersecting tensions and influences, as well as multiple sources of difficulty experienced by individual parents and families. From time to time extreme events, such as death, flight or conflict may overwhelm the program. To what extent can these challenges be moderated by adjustment of the intervention model?

The options for responding to these challenges include:

- improving the cultural resonance or 'cultural fit' of the program with values and cultural understandings of the participants

- developing specific, locally informed or ‘place-based’ strategies to recruit parents to the program and to retain them
- adapting the format of the model and the site of delivery

In urban fringe camps or special lease communities, as well as in remote communities, the process of engagement with parents focused on the individual school as a source of referrals and relied on direct and pro-active engagement by the team with parents in the community to gain and sustain their participation. This has been relatively successful on the Tiwi islands. However, it has not been successful in some of the small fringe communities of Darwin’s suburbs, or even in Indigenous-specific programs for whole areas, such as Palmerston.

1. Alternatives to the school or classroom withdrawal model

Withdrawal of children from classroom or school is questionable in fringe settings such as Bagot community in Darwin and in many remote communities with small numbers of potential participants. The appropriate alternative to the current approach would seem to be to shift the program focus to bringing parents onto the school campus to participate in a modified program of activity with children. In such an in-school or in-centre model, the program would be delivered in the childcare centre or preschool for all enrolled children and their parents, and in which the teaching or childcare staff are given training to participate as assistant group leaders for the weekly sessions. Thus, each week for the scheduled two hours, children are not withdrawn from the classroom or centre to participate, but Let’s Start activity becomes the activity of the centre for one morning per week. The efforts of the intervention team would be focussed on engaging the parents to join in at school or centre on a weekly basis. The chief focus of this model would be on the interactive group work, with parenting discussions held separately. This approach could apply not only in urban fringe settings on a school by school basis but also in small remote schools and preschools in which there are only small numbers of eligible participants and thus no prospect of consolidating the resources for continuous program delivery.

2. Adequate community resources to deliver the program: local teams and stronger ‘cultural fit’

In many settings, the rhythm of community activity, the mobility of parents to and from the community for a range of reasons – including reactions to stress – may make the current complex program structure difficult to sustain. Local stressors impact the program with unpredictable frequency. Improvements to community-based resources, such as recruitment of stronger teams of locally based personnel able to engage in more contact and follow-up with parents, may improve acceptance of the current multi-group structure. Strategies to include parents can be tailored for local circumstances on the basis of better understanding of underlying issues likely to affect program completion. In addition to such measures, further program adaptation to more clearly target needs and issues and cultural themes of parenting and family life and developmental expectations in the community can be undertaken. Taken together these measures may contribute to improved parental retention in the program.

However, the ‘cultural fit’ of the program may need to be well defined to maintain the professional integrity of the program’s foundations in developmental science. The balance between ‘cultural fit’ and targeted professional input may need to be weighed up for any specific intervention according to whether the goals of intervention are wide participation and inclusion in supportive activity or targeted intervention in terms of age or types of risk.

3. Reorganising current intervention elements

The current three-part multi-group structure of Let’s Start ETPP is difficult to sustain. It is possible that separating components of the Exploring Together format and delivering them separately for Indigenous parents and for children might contribute to improved effectiveness of the separated elements to an extent that outweighs the benefit of keeping them together. The options include continuing a program that directly targets parenting and parent-child interaction as in the current sequence of interactive and parents’ groups. With such a model, children would be returned to class after interactive group work. Children’s social skills training could be developed as a separate intervention and run for children as a school-based program within the school in one or more classrooms.

It may well be that relatively steep attrition and attendant risks to program completion are unavoidable, but justifiable in light of the clear capacity to benefit among those participants who are able to remain engaged by the program and follow-up measures. In this sense, program attrition and vulnerability are an unavoidable cost of doing business in such community settings. The question then would be demonstrating how and by what combination of professional and other resources, optimal effectiveness can be achieved. These questions of program redesign to optimise participation, retention and effectiveness should inform further development of the research program.

5.2 Context, Program Development and Replication

Despite the limitations of the research design, the Let’s Start project has provided extensive insight into critical processes of delivery and into frameworks for culturally informed and professionally competent engagement that necessarily underpin future efforts to develop effective interventions for parents and young children in both urban and remote settings. Current challenges before government, service providers and researchers, are to extend early childhood preventive and supportive services to Indigenous people in remote centres that are non-trivial, high quality and professionally supported – and for which there is evidence of effectiveness. It is often difficult to disentangle questions of effectiveness from questions relating to the capacity of systems and supports to sustain any program – and high levels of client participation and retention – in specific community contexts. Consideration of these questions concludes this report.

5.2.1 Program Funding and Costs of Delivery

Program funding for Let's Start totalling \$681,142 was initially received from the Invest to Grow program of the Stronger Families and Communities Strategy in the Commonwealth Government Department of FaHCSIA. Initial funding of \$40,000 was made available by NT DHF, as a carryover from the earlier grant for Ngaripirliga'ajirri. Although there is overlap between research and delivery of the intervention, this was approximately the amount of funding expended on program delivery (excluding evaluation) over the period of this evaluation.

Extension funds both from Invest to Grow and from the NT Emergency Response (NTER) were granted for the period up to June 30, 2009. Extension funding of \$530,000 has also been received from the CRC for Aboriginal Health for the period up to March 2010, to extend components of service delivery, and to support research transfer activity and publication beyond the end of the major grants. A grant of \$30,000 was received from the NT Government's Research and Innovation Fund for development of materials and resources. NT DET provided \$80,000 as its contribution to an ARC Linkages Program evaluation project which entails a postgraduate research project investigating aspects of parenting and parent-child interaction.

Resource constraints encountered by Let's Start were in large part due to the need to effectively sustain two program models – one on the Tiwi islands, one in Darwin – which are quite different in the way resources need to be deployed, and entail different costs.

Major cost considerations for delivering early intervention in remote communities include access to a dedicated vehicle in community (at a cost of about \$15,000 per annum) as well as costs of travel and accommodation for visiting staff and costs and efficiency of management and supervision of community-based personnel. The travel costs associated with provision of the program on the Tiwi islands were up to 15% of total budget. Once-weekly return travel costs of a single person are approximately \$11,000 per annum. At today's prices, a fully costed budget including airfares, accommodation and allowances for travel of one supervisor or project leader to the islands may therefore be in excess of \$30,000 per annum, up to \$40,000 per annum if costs of travel of community team members to Darwin for training, meetings, etcetera, are included. These brief notes on costs of delivery are intended to highlight the need to carefully consider options for delivery of such services in remote settings.

5.2.2 Options for Remote Program Delivery

To be delivered efficiently in remote communities, targeted or semi-targeted parenting programs are faced with two choices:

1. To be delivered as a targeted intervention on a fly-in fly-out basis by a visiting team working intensively on one to two days per week with limited investment in local resources and personnel.
2. To be built on employment and supervision of community-based personnel, with access to vehicles, rooms and budgets for training and associated travel, housed and managed through local agencies and with fly-in supervisory support by a central team.

The effectiveness and quality achievement of these two implementation models as interventions would in principle be testable in controlled research (Spoth et al., 2007a; Spoth et al., 2007b).

The higher travel costs for a larger visiting team in the first model are offset by lower costs to maintain a community team and infrastructure. It is professionally driven and can yield high quality and high fidelity in delivery of a program. The weaknesses are diminished capacity for engagement with clients and community, with high risk of lower client retention, weaker cultural responsiveness to the point of diminished effectiveness of ‘treatment’, and a lack of transfer of skills and capacity to local community providers. Finally, the program may simply not be widely replicable on this basis.

The second model offers the opportunity for community participation, culturally relevant input and for transfer of skills and capacities. It can overcome the discontinuous presence in the community and low levels of engagement and follow-up that attend the first model. It can reduce some costs if it requires lower levels of external professional supervision from a central team. It may improve engagement and retention of clients, but is vulnerable to turbulence of local organisational capacity, recruitment and management and carries risks to program fidelity, which are often only overcome by increased external supervision and direction. Wide replication of this basis may over-tax agency commitment to sustain the services in multiple communities on a common footing.

As is discussed further below, structured, targeted early intervention services require continuing inputs of professional supervision and support. They cannot be based on simple handover of responsibility to community members with limited training, weak local agency support and subject to many competing local agendas. Based on the experience of Let’s Start ETPP, our preferred model for delivery in multiple remote communities is for a variant of model two, with locally funded team members supported by community educational and health care systems and with visiting supervision by the research implementation team to provide training and support for delivery.

5.2.3 Innovation and Sustainability in Service Development

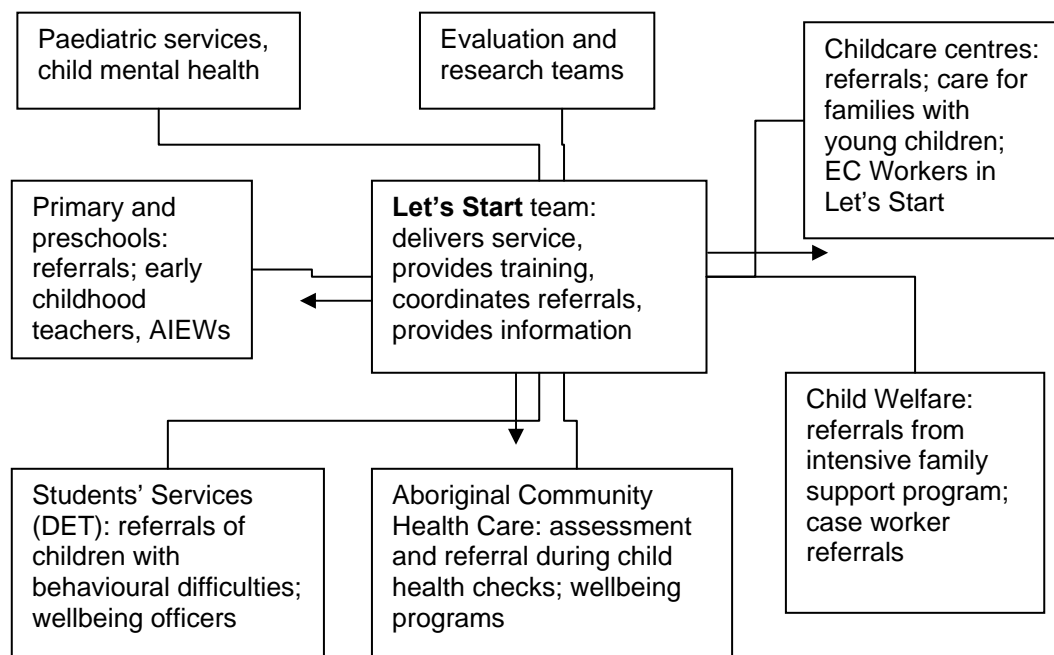
The implementation of Let’s Start ETPP involved a heavy commitment to service development, based on collaboration with partners to secure resources and to gain support for the processes necessary to make the program available. A high degree

of active engagement was needed to generate the necessary inputs by partners and the support of schools and staff for key processes of referral and evaluation.

General intake model for Indigenous and non-Indigenous families

As described elsewhere in this report, in the Darwin general intake program, promotion and engagement through visits, meetings and workshops for schools, AIEWs, practitioner groups within health, education, child protection, domestic violence and alcohol recovery organisations, was carried out continuously over two years and periodically thereafter. The process of referral remained episodic rather than continuous and the effort of program promotion competed with resources for delivery to a significant degree. Referral processes were thus not self-sustaining, and, despite the individual support of teachers and principals, did not widely become routine school business.

Figure 12: A referral network for expanded program delivery



Let's Start was established to work with primary schools and preschools. There was only limited engagement with child mental health service provision, paediatric services, psychological services and as a result only limited access to professional experience and expertise from these fields in the program implementation team. The future sustainability of a general intake program may depend on success in embedding and routinisation of the referral and promotion process within both school and health systems of the NT. There is a striking lack of support provided to schools to assess children's developmental readiness at preschool and transition intake in the NT and to help parents to access appropriate interventions. If this capacity were developed at the school level, then it could become a major support to

the development of supportive early intervention strategies and initiatives, like Let's Start ETPP.

Figure 12 outlines the range of participants in referral networks and potential workforce involvement in delivery of the Let's Start program. A number of these have participated only tentatively or minimally to date, although all have expressed interest in participation. Workforce participation has been of two kinds: (a) professional or practitioner use of referral mechanisms; (b) practitioner participation in program delivery.

Concerning referral mechanisms, it appears necessary promoting program delivery needs to be supported by strengthened referral and assessment protocols and practices both for the education sector and for the health care sector.

- *In education.* Processes of referral and program promotion both through Students' Services and among schools need to occur in conjunction with development of a system of appropriate assessments of children's developmental social-emotional readiness at schools and preschools. A structured assessment and referral process would assist early identification of needs and guide provision of support for children and families.
- *In health care.* The partnership with Danila Dilba Aboriginal Medical Service helped identify the need for specific guidelines for assessing children's behavioural development and social-emotional wellbeing to be incorporated in routine child health care practices. Other research has shown that these are hardly, if at all carried out in Indigenous primary health care (Bailie et al., 2008). A project to undertake such work has been initiated in partnership with CRCAH.

Concerning practitioner participation in the work of program delivery, it is necessary to provide for a mix of skills in delivery of the program. This needs to include professionally trained persons, with qualifications in early childhood, psychology or health care as well as persons who are active community members, preferably with some relevant qualifications, who work as wellbeing officers or educational assistants at the community level. These resources are at best unevenly available in community organisations and even in the main agencies responsible for health and education services in Darwin.

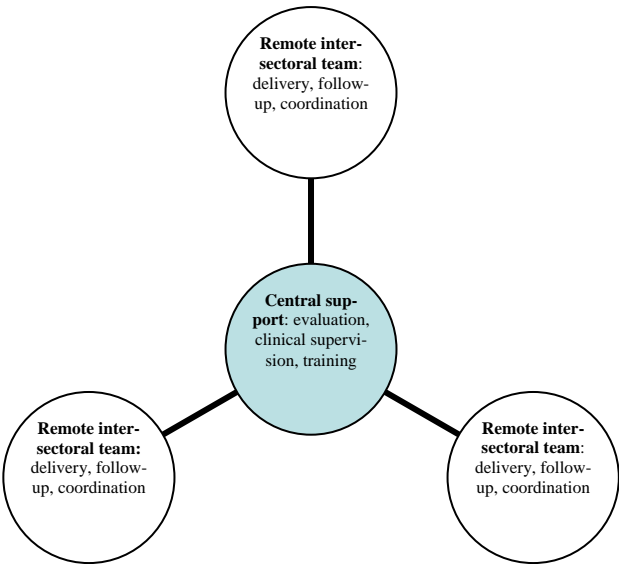
Figure 12 describes a referral network that might also serve as a source of staff input in delivery. Future development of the Let's Start general intake and Indigenous-specific programs in Darwin should be based on stronger interaction with universal services both in terms of referral process and in terms of agency workforce participation.

5.2.4 Sustaining Early Intervention in Remote Settings

Community organisations in any context lack the depth and range of professional expertise to sustainably deliver structured early intervention and parenting support programs (Spoth et al., 2004). For many, if not most communities of the NT, there is very low service delivery capacity and very limited availability of professional personnel able to assist with delivery of structured programs like Let’s Start ETPP. In remote communities, experience suggests that program development and replication must be achieved on a different basis than in urban settings.

The Let’s Start early intervention program has now been extensively trialled on the Tiwi islands and piloted in other remote community settings such as Palumpa. Attunement to the needs and preferences of parents in small communities and micro-management of the local politics of service delivery can be demanding work. It needs a combination of credible authority and local ‘street knowledge’ and is subject to many disruptions. In the Tiwi islands, Tiwi Community Health Workers linked to health centres have participated in program delivery on an occasional basis, while community mental health services have not provided any input in the form of referrals or staff involvement. The amount of disruption and competition between the dozens of service providers active in these communities is often alarming.

Figure 13: Central resources to support evidence-based remote delivery



The project has relied on the participation of a small group of senior community members who have worked with the program over a number of years. This includes some persons whose first experience of the program was attendance with a

referred child. Community workers with a strong sense of local culture, values and practices, and a strong commitment to working with families and children are indispensable members of the team. However, the ability to sustain the mix of skills required for effective delivery is not secured with their inclusion; sustaining the involvement of community members requires clear *external* support.

In these centres, the most important relevant providers of universal services are the schools and health services, with targeted services provided on a fly-in or visiting basis. In these communities, the provision of preventive family support and early intervention could be based on community-level 'intersectoral' partnerships between schools, health and possibly childcare services supported by the professional capacity of a centrally based multi-disciplinary team. The central team would be responsible for training, support for coordination and planning and for clinical supervision of intake, delivery and follow-up to maintain program quality and fidelity. There is international evidence that indicates that such external support and monitoring is a key to quality implementation of prevention programs at the school and community level (Fagan & Mihalic, 2003).

Local resources need to be supported by schools and health services, to ensure that assessments and referrals, and basic program activity can be sustained in ways that are responsive to local cultures and conditions. Such a model of centrally supported remote services would form the basis for implementing a research-driven community program of early intervention. *Our argument is that, to sustain evidence-based early childhood programs based on 'community-level intersectoral partnerships', professional supervision, training and evaluation need to be maintained as an ongoing, centrally provided resource.*

5.2.5 Research, Service Development and Research Transfer

Research into the efficacy of preventive interventions aims to understand causal pathways, change mechanisms and treatment outcomes, ideally using valid standardised measures and randomised or matched controls (Flay, 1986). It may be possible to achieve this with minimal redevelopment of and hence change and disruption to existing services, providing the research program is sufficiently resourced and the working arrangements regarding time and location of delivery and referral are robust – and there are clients who can be relatively easily identified and recruited.

If an intervention can be set up in this way, that is, as a research-driven program that is fully research-funded and run alongside of rather than as part of existing universal service delivery, the necessary managerial disciplines and professional capacities required by the intervention are provided entirely by the research program. This can ensure optimum levels of consistency and fidelity of program delivery over time. However, it also has the consequence that there is at best limited transfer of those disciplines and capacities to the service delivery context, and that the necessary mix of 'championship' and routine implementation to support uptake of the program may not occur. Research with low commitment to service devel-

opment may thus provide limited guidance concerning the conditions of effectiveness and the opportunities for implementation of the program on a sustainable basis within redeveloped service frameworks.

Conversely, while a high commitment to service development and capacity building in the community and in the workforce may clarify important questions of real world integration and management, it often goes with a limited or low commitment to robust evaluative research: the management of change, the maintenance of new or reorganised services, and the creation of demand in the community are so demanding that they weaken the commitment to the explanatory research and/or confound the effects of intervention.

Let's Start ETPP has developed between these two ends of the spectrum. It has been supported by existing service delivery frameworks to a limited degree, through the general support provided by schools and teachers. It has entailed a large commitment to community engagement and service development such that constraints were imposed on the research program. Nevertheless, as a research trial, Let's Start ETPP has posed important questions for further research into effective early intervention with Indigenous children and families and has allowed us to identify many of the barriers to and possibilities for uptake of such programs within community service provision.

The final general messages from this evaluation are thus twofold: firstly, that agencies should commit to further development of evidence-based services both for the general community and for Indigenous communities, in partnership with the research sector; and, secondly, that there is a need for further, rigorous research on key questions concerning links between parenting, child development and the prospects for effective intervention for Indigenous families.

Appendices

Appendix 1: Referral Processes

Schools were initially expected to be the primary source of referrals for the program, and, accordingly the Let's Start team have invested significant time and resources on school engagement activities. It is estimated that Let's Start staff devoted approximately 10 hours to engagement activities at each school. Given that there were 22 schools that referred children to Let's Start during 2006 and 2007 this equates to approximately 220 hours spent on school engagement. This does not include numerous schools to which Let's Start devoted hours of promotional effort but which did not refer any children to the program.

Table 14: Numbers of school-based referrals by school

<i>Referring Schools</i>	<i>N</i>	<i>%</i>
Anula Primary School	2	1.6
Bakewell Pre and Primary School	6	4.8
Bees Creek Primary School	1	0.8
Driver Preschool	2	1.6
Driver Primary School	2	1.6
Durack Pre and Primary School	3	2.4
Holy Family School (ELC)	1	0.8
Howard Springs Primary School	5	4.0
Jabiru Area School	4	3.2
Jingili Primary School	13	10.4
Larrakeyah Primary School	1	0.8
Leanyer Primary School	1	0.8
Ludmilla Pre and Primary School	10	8.0
Manunda Terrace Pre and Primary School	6	4.8
*Milikapiti Community School	15	12.0
Millner Preschool	7	5.6
Moil Primary School	2	1.6
*Murrupurtiyanwu Catholic School (M.C.S.)	27	21.6
Nakara Primary School	2	1.6
Nightcliff Primary School	8	6.4
Wagaman Pre and Primary School	5	4.0
Wulagi Preschool	2	1.6

*Tiwi islands schools

School engagement activities of Let's Start staff members included:

- multiple phone calls, emails and letters to school staff members
- arranging and attending executive teacher meetings
- arranging and attending teacher meetings
- arranging and attending principal/assistant principal meetings
- attending school 'meet and greets'
- attending early childhood staff meetings

- attending 'special' staff meetings
- Let's Start presentations to the whole school staff body
- preschool association meetings/presentations
- presentations to parent bodies (school council, mothers groups etc)
- attending parent gatherings
- delivering Let's Start program training to school staff, ECTs, AIEWs
- multiple informal visits to enhance understanding and keep up contact
- drop offs of referral forms and brochures (all schools)
- advertising in school newsletters
- presentation at NT Council of Government Schools Organisation (COGSO) Conference

To date, successful generation of referrals from schools requires forming ongoing relationships between Let's Start team members and key persons within the schools. To be effective, the contact person must have or acquire a clear understanding of how the Let's Start program works. The program has drawn to some extent on experience of Let's Start staff members in education and their acquaintance with school staff members. A team member responsible for referrals during most of 2006 and some of 2007 was seconded from the Students' Services Division of NT DET, and was well known to many teachers, and a Let's Start team leader had a background as an Indigenous Liaison officer in schools in the Darwin region. Both drew on their extensive contacts to promote the program and maintain referrals.

The program received only a few referrals from other community agencies (3.3% of total), organisations or individual professionals. Let's Start staff did not commit the same amount of time or resources to engage these other sources of referrals: it is estimated that approximately a quarter of the time spent on the engagement of schools was spent on promotion among social workers and child protection personnel, domestic violence, Indigenous family welfare and other family support services.

The small return on the time invested undoubtedly reflects a combination of factors: the employment backgrounds (AIEWs, special education teachers) of the Let's Start team were better suited to engage with schools than child welfare and other sectors, both in terms of team knowledge of the school sector and credibility among agency practitioners; the systematic links with agency management and programs remained less well developed so that pathways were not sufficiently clearly mapped out and supported. However, some agencies, such as domestic violence services, were less able to provide single referrals to Let's Start programs and expressed interest in tailored programs for parents coping with trauma or under high stress and in transitional living situations. Some clients referred by child welfare had similar difficulties. They often could not be accommodated, even on an individual basis. Tailored programs for groups with special needs were beyond the scope of the program as it has been run to date.

It should be noted that child protection caseworkers on the Tiwi islands advised on the suitability of numerous children and families for possible referral to the program, but that it was found that these children had already been referred by school staff. Such children would be recorded as school-sourced referrals. For this reason, the number of child welfare referrals on the Tiwi islands is understated. There was some promotion of the program to community health services, but virtually no promotion of the program among paediatricians, general practitioners and mental health services, and correspondingly no referrals from those sources. These are major, if not the main contributors to referrals to Exploring Together in its original setting.

During much of 2006, referrals remained so slow that barely one program per term could be provided in Darwin. The work of building the process and promoting the program in Darwin precluded continuous input into the Tiwi program. If the Tiwi program had been run continuously, the resources would not have been available to maintain sufficient activity to build capacity in Darwin at all. By 2007, referrals had grown to the point at which it was possible to run almost three programs per term in Darwin and Palmerston, with 30 and more schools providing referrals. This level of referral in Darwin was not sustained, because of the need to rebuild Tiwi processes, with the result that by mid 2008 there was again a need to regenerate the referral base in Darwin.

Appendix 2: Covariation Statistics and Sample Changes to Follow-up

Table 15: Socio-demographic characteristics by parents' rating of schoolwork and problems at referral#

Educational and Behavioural Ratings at Referral	Total Sample		Non-Indigenous		Indigenous Urban		Indigenous Tiwi		Male Gender		Aged 3–4 yrs		Aged 5 yrs		Aged 6–8 yrs	
N (Column %)	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Good Schoolwork Rating	55	24%	27	28%	11	22%	17	22%	29	19%	16	22%	23	29%	16	22%
Average Schoolwork Rating	63	28%	33	34%	8	16%	22	29%	46	29%	26	36%	20	26%	17	24%
Poor Schoolwork Rating	22	10%	9	9%	3	6%	10	13%	18	12%	4	6%	10	13%	8	11%
Aggressive	97	43%	46	47%	21	42%	30	39%	75	48%	31	43%	37	47%	29	40%
Oppositional	88	39%	46	47%	19	38%	23	30%	60	38%	30	42%	26	33%	32	44%
Hyperactive	55	24%	24	24%	15	30%	16	21%	48	31%	19	26%	19	24%	17	24%
Phobias	22	10%	12	12%	5	10%	5	6%	16	10%	7	10%	8	10%	7	10%
Withdrawal	40	18%	15	15%	10	20%	15	19%	25	16%	13	18%	13	17%	14	19%
Worries	21	9%	14	14%	4	8%	3	4%	13	8%	6	8%	8	10%	7	10%
Distractible	95	42%	37	38%	28	56%	30	39%	70	45%	29	40%	29	37%	37	51%
Problematic Relationships	91	40%	47	48%	18	36%	26	34%	62	40%	29	40%	28	36%	34	47%
Developmental Delay	34	15%	18	18%	8	16%	8	10%	22	14%	12	17%	11	14%	11	15%
Cognitive	19	8%	7	7%	9	18%	3	4%	13	8%	4	6%	6	8%	9	13%
Language	36	16%	13	13%	20	40%	3	4%	26	17%	10	14%	12	15%	14	19%
Emotional	44	20%	25	26%	15	30%	4	5%	31	20%	15	21%	10	13%	19	26%
Below Median Parents' NP	71	32%	40	41%	12	24%	19	25%	44	28%	30	42%	24	31%	17	24%
Valid N (% of total)	225		98		50	22%	77	34%	156	69%	72	32%	78	35%	72	32%

*Rates are expressed as percentages of sample totals for each column; due to attrition or non-response, some percentages (e.g., for schoolwork ratings, will not sum to 100%. # Cells with rates > 10% of those for the total sample are highlighted in green.

Table 16: Participation rates* of referred children by Indigenous status, gender and age#

Retention and Attendance Total Sample			Non-Indigenous		Indigenous Urban		Indigenous Tiwi		Male Gender		Age Groups Age 3–4 yrs		Aged 5 yrs		Age 6–8 yrs	
N (Column %)	Total	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Attended 1 + session	110	49%	47	48%	15	30%	48	62%	74	47%	34	47%	41	53%	35	49%
Attended 50% sessions	87	39%	41	42%	10	20%	36	47%	60	38%	30	42%	34	44%	23	32%
Parent NP Referral	144	64%	69	70%	23	46%	52	68%	97	62%	48	67%	55	71%	41	57%
Parent NP End	80	36%	36	37%	9	18%	35	45%	55	35%	30	42%	30	38%	20	28%
Parents NP Follow-up	52	23%	23	23%	4	8%	25	32%	33	21%	13	18%	23	29%	16	22%
Parent SDQ Referral	143	64%	69	70%	23	46%	51	66%	97	62%	48	67%	54	69%	41	57%
Parent SDQ End	80	36%	36	37%	9	18%	35	45%	55	35%	30	42%	30	38%	20	28%
Parent SDQ Follow-up	50	22%	23	23%	4	8%	23	30%	30	19%	14	19%	20	26%	16	22%
Teacher NP Referral	115	51%	44	45%	19	38%	52	68%	80	51%	34	47%	42	54%	39	54%
Teacher NP End	67	30%	26	27%	9	18%	32	42%	46	29%	22	31%	24	31%	21	29%
Teacher NP Follow-up	52	23%	21	21%	5	10%	26	34%	34	22%	13	18%	19	24%	20	28%
Teacher SDQ Referral	115	51%	44	45%	19	38%	52	68%	80	51%	34	47%	42	54%	39	54%
Teacher SDQ End	67	30%	26	27%	9	18%	32	42%	46	29%	22	31%	24	31%	21	29%
Teacher SDQ Follow-up	52	23%	21	21%	5	10%	26	34%	34	22%	13	18%	19	24%	20	28%
K6 Referral	64	28%	31	32%	7	14%	26	34%	44	28%	18	25%	27	35%	16	22%
K6 Completion	54	24%	27	28%	5	10%	22	29%	39	25%	21	29%	20	26%	13	18%
Total (Valid n)	225		98	44%	50	22%	77	34%	156	69%	72	32%	78	35%	72	32%

*Rates are expressed as percentages of sample totals for each column; due to attrition or non-response, some percentages (e.g., for schoolwork ratings, will not sum to 100%. # Cells with rates > 10% of those for the total sample are highlighted in green.

Table 17: Participation rates* by parents' rating of schoolwork and problems identified at referral#

	Schoolwork Ratings**												Problem Behaviours					
	Total		Good		Average		Poor		Aggressive		Oppositional		Hyperactive		Phobias		Withdrawal	
N (% of Column)	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ATTENDED 1 or more sessions	110	49%	38	69%	49	78%	17	77%	44	45%	36	41%	31	56%	12	55%	17	43%
Attended 50% of sessions or more	87	39%	30	55%	39	62%	15	68%	34	35%	28	32%	25	45%	11	50%	13	33%
Parent NP Referral	144	64%	55	100%	63	100%	22	100%	66	68%	53	60%	41	75%	16	73%	23	58%
Parent NP End	80	36%	26	47%	38	60%	13	59%	28	29%	24	27%	24	44%	9	41%	12	30%
Parents NP Follow-up	52	23%	14	25%	27	43%	8	36%	20	21%	20	23%	13	24%	4	18%	9	23%
Parent SDQ Referral	143	64%	54	98%	63	100%	22	100%	66	68%	53	60%	41	75%	16	73%	23	58%
Parent SDQ End	80	36%	26	47%	38	60%	13	59%	28	29%	24	27%	24	44%	9	41%	12	30%
Parent SDQ Follow-up	50	22%	15	27%	26	41%	7	32%	19	20%	19	22%	13	24%	4	18%	10	25%
Teacher NP Referral	113	50%	38	69%	49	78%	20	91%	47	48%	40	45%	32	58%	12	55%	20	50%
Teacher NP End	67	30%	22	40%	30	48%	11	50%	25	26%	23	26%	20	36%	9	41%	10	25%
Teacher NP Follow-up	52	23%	15	27%	22	35%	13	59%	23	24%	18	20%	16	29%	7	32%	11	28%
Teacher SDQ Referral	113	50%	38	69%	49	78%	20	91%	47	48%	40	45%	32	58%	12	55%	20	50%
Teacher SDQ End	67	30%	22	40%	30	48%	11	50%	25	26%	23	26%	20	36%	9	41%	10	25%
Teacher SDQ Follow-up	52	23%	15	27%	22	35%	13	59%	23	24%	18	20%	16	29%	7	32%	11	28%
K6 Referral	61	27%	25	45%	26	41%	8	36%	22	23%	20	23%	17	31%	8	36%	12	30%
K6 Completion	54	24%	22	40%	23	37%	8	36%	17	18%	15	17%	15	27%	8	36%	10	25%
Valid n (Group % of Total N)	225		55		63		22		97		88		55		22		40	

Problem Behaviours (Continued)																		
	Total		Worries		Distractible		Problematic Relationships		Developmental Delay		Cognitive		Language		Emotional		Below Median for Parents' NP Score	
N (% of Column)	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Attend 1 +sessions	110	49%	9	43%	50	53%	43	47%	14	41%	10	53%	15	42%	20	45%	54	76%
Attended 50% of sessions	87	39%	9	43%	39	41%	34	37%	11	32%	8	42%	11	31%	16	36%	43	61%
Parent NP Referral	144	64%	15	71%	61	64%	61	67%	19	56%	11	58%	18	50%	25	57%	71	100%
Parent NP End	80	36%	7	33%	37	39%	30	33%	11	32%	9	47%	10	28%	14	32%	40	56%
Parents NP Follow-up	52	23%	6	29%	21	22%	22	24%	6	18%	5	26%	7	19%	10	23%	25	35%
Parent SDQ Referral	143	64%	15	71%	61	64%	61	67%	19	56%	11	58%	18	50%	25	57%	70	99%
Parent SDQ End	80	36%	7	33%	37	39%	30	33%	11	32%	9	47%	10	28%	14	32%	40	56%
Parent SDQ Follow-up	50	22%	6	29%	19	20%	20	22%	6	18%	5	26%	7	19%	10	23%	26	37%
Teacher NP Referral	113	50%	10	48%	53	56%	48	53%	16	47%	11	58%	15	42%	20	45%	55	77%
Teacher NP End	67	30%	6	29%	31	33%	27	30%	9	26%	6	32%	8	22%	13	30%	32	45%
Teacher NP Follow-up	52	23%	6	29%	24	25%	26	29%	10	29%	8	42%	8	22%	12	27%	27	38%
Teacher SDQ Referral	113	50%	10	48%	53	56%	48	53%	16	47%	11	58%	15	42%	20	45%	55	77%
Teacher SDQ End	67	30%	6	29%	31	33%	27	30%	9	26%	6	32%	8	22%	13	30%	32	45%
Teacher SDQ Follow-up	52	23%	6	29%	24	25%	26	29%	10	29%	8	42%	8	22%	12	27%	27	38%
K6 Referral	61	27%	7	33%	25	26%	25	27%	9	26%	6	32%	9	25%	13	30%	24	34%
K6 Completion	54	24%	4	19%	26	27%	21	23%	8	24%	5	26%	7	19%	10	23%	24	34%
Valid N (Column % of Total)	225		21		95		91		34		19		36		44		71	

*Rates are expressed as percentages of sample totals for each column; due to attrition or non-response, some percentages (e.g., for schoolwork ratings), will not sum to 100%. # Cells with rates > 10% of those for the total sample are highlighted in green. ** Because of a high rate of missing data for schoolwork ratings, highlighted deviations are compared with those for the 'average' rating, rather than total sample percentages.

Table 18: Detailed change scores by Indigenous status, gender and age and schoolwork rating

		P1 minus P3 NP change			P1 minus P4 NP change		P1 minus P3 SDQ change		P1 minus P4 SDQ change			
Covariate	Category	Count*	Mean	S.E.Mean	Mean	S.E.Mean	Mean	S.E.Mean	Mean	S.E.Mean	Mean	S.E. Mean
Indigenous Status of Child	Non-Indigenous	47	15	3.45	22.52	5.86	4	0.8	4.17	1.04	2.71	0.96
	Urban Indigenous	15	14.11	10.37	9.5	9.37	1.11	2.56	-1.75	3.2	0.67	2.03
	Indigenous Tiwi	48	1.59	3.6	10.21	3.24	0	0.9	0.74	1.19	0.79	1.02
Gender	Female	36	7.17	3.4	14.74	3.56	1.21	0.85	2.1	1.26	0.86	1.46
	Male	74	9.98	3.39	16.28	4.69	2.27	0.83	2.13	1.06	2.14	0.71
Age 5 yrs or below	Age of Child 6 + yrs	35	7.9	5.19	19.81	4.47	2.15	1.09	3.19	1.55	2.2	1.92
	Age of Child 3–5 yrs	75	9.54	2.98	13.83	4.2	1.88	0.77	1.62	0.94	1.58	0.67
Academic Rating	Average and above	93	6.09	2.68	17.74	3.59	1.62	0.65	2.67	0.85	1.84	0.76
	Poor	17	24.54	6.29	4.75	5.66	3.62	1.98	-1.29	2.09	1	1.1
Measured Behaviour Change – Teachers												
		T1NP minus T3NP Change			T1NP minus T4NP Change		T1SDQ minus T3SDQ Change		T1SDQ minus T4SDQ Change		K6T1 minus K6T3 Change	
Covariate	Category	Count*	Mean	S.E.Mean	Mean	S.E.Mean	Mean	S.E. Mean	Mean	S.E.Mean	Mean	S.E. Mean
Indigenous Status of Child	Non-Indigenous	47	16.81	7.87	17.14	6.97	2.27	1.06	3.9	1.15	2.71	0.96
	Urban Indigenous	15	19.88	12.55	23.6	18.73	-1.88	2.54	-2	2.7	0.67	2.03
	Indigenous Tiwi	48	7.44	6.1	21.92	8.72	2.38	1.15	2.65	1.54	0.79	1.02
Gender	Female	36	10.29	8.52	19.78	8.34	3	1.37	4.67	1.39	0.86	1.46
	Male	74	13.73	5.37	20.35	7.06	1.27	0.92	1.68	1.23	2.14	0.71
Age 5 or below	Age of Child 6 + yrs	35	2.57	5.53	25.7	8.03	0.43	1.37	1.65	1.45	2.2	1.92
	Age of Child 3–5 yrs	75	17.33	6.02	16.69	7.22	2.47	0.92	3.37	1.25	1.58	0.67
Academic Rating	Average and above	93	8.93	4.77	18.62	6.51	1.22	0.77	3	1.08	1.84	0.76
	Poor	17	31.18	11.9	24.77	9.45	4.82	2.44	1.85	2.07	1	1.1

*n of total attendance sample (n = 110) only (sample pair n's were used for S.E. Mean)

Appendix 3: Instruments and Measures

Teacher referral form template

Date of Referral: _____

Referrer Details

Referrer Name: _____ Referrer Title: _____

Referral Organisation/School Name: _____

Postal Address of Organisation/School: _____

Child's Details

Child's Name: _____ Age: _____ Gender: _____ Year Level: _____

Child's Teacher's Name: _____

Child's School/Organisation: _____

School/Organisation Address (if different from above): _____

Parent's Details

Mother's Name: _____

Father's Name: _____

Mother's Contact Details:
Phone: _____ Mob: _____

Father's Contact Details:
Phone: _____

Email: _____

Mob: _____
Email: _____

Mother's Address: _____

Father's Address: _____

Mother's Occupation:
☐ Home Duties
☐ Unemployed ☐ Unknown
☐ Employed (please specify): _____
☐ Other (please specify): _____

Father's Occupation:
☐ Home Duties
☐ Unemployed ☐ Unknown
☐ Employed (please specify): _____
☐ Other (please specify): _____

Primary Caregiver Details (if different from above)

Name: _____

Address: _____

Phone: _____ Mobile: _____ Email: _____

Reasons for Referral _____

Presenting Problems (tick if relevant)

<input type="checkbox"/> Aggressive	<input type="checkbox"/> Fears/phobias	<input type="checkbox"/> Distractible/inattentive
<input type="checkbox"/> Oppositional	<input type="checkbox"/> Social with-drawal	<input type="checkbox"/> Problematic peer relationships
<input type="checkbox"/> Hyperactive/impulsive	<input type="checkbox"/> Worries	<input type="checkbox"/> Developmental Delay <input type="checkbox"/> cognitive <input type="checkbox"/> language <input type="checkbox"/> social/emotional

Duration of Presenting Problem? _____

Strategies currently used to manage/stop the Problem? _____

Other Assessments (provide details of any cognitive, developmental, or speech language assessments) _____

Any issues you see that may be a problem for referred parent and child attending the program (eg. transportation, childcare, personal issues)?

☐ I am aware that a member of the Let's Start team will be contacting me to provide further information about participation in the program

Parent's Signature Date

Let's Start Evaluation

Booklet One

Parent Interview and Demographic Questionnaire
Personal Information

Let's Start Child ID



PLAIN LANGUAGE STATEMENT

Let's Start Evaluation Project

A research team consisting of Dr Gary Robinson and Professors Sven Silburn and Steve Zubrick from Charles Darwin University and the Telethon Institute of Child Health Research are implementing the Let's Start Program for Indigenous Preschool Children and examining its outcomes in the Let's Start Evaluation Project.

The aim of the project is to develop sets of questions which will measure:

- 1) the benefits of the Let's Start Program for parents and for children and for schools, and
- 2) the sorts of issues and characteristics that are most closely related to children's behavioural difficulties at home and at school.

Your child has been referred to the Let's Start Program by..... This means that we think that your child might benefit from being with you in the Let's Start Program.

If you agree, we will provide you with further information about the referral of children to the program and about the program itself. If you then agree to participate with your child, members of the team will ask you to sign consents to the following:

- your child's participation in the program
- our access to some data about your child's school attendance and health services received
- the provision of information by teachers to the Let's Start team
- completion of questionnaires about yourself and your child.

This information is needed by the program, and by the program evaluators.

All information collected for the evaluation of the Let's Start Program will remain:

- 1) **ANONYMOUS:** Your (and your child's) name and address must be known to the researchers, so they can find you, but it will never be mentioned in the report of the research, and your personal details will be locked away, quite separate from the other material.
- 2) **CONFIDENTIAL:** You will not be able to be identified by anything that is written in the text of the research paper.

The same care will be taken with the names or characteristics of anyone you mention in the interview.

If you decide to participate, please sign the consent forms provided with this information and return to the team member, as arranged.

After these are signed, you may still withdraw from the study at any time.

Contact Information

If you would like more information before you decide, contact, on 89467001. She or another member of the team will be happy to answer questions. You may also use this number at any time during the project, if you need information.

If, during the course of the project, you have any concerns about the project or the researchers, you may contact the Executive Officer of the Charles Darwin University Human Research Ethics Committee, who is not connected with this project and who can pass on your concerns to appropriate officers within the University.

The Executive Officer can be contacted on 08 8946 7064 or by e-mail: he-mali.seneviratne@cdu.edu.au

Thank you for considering this information.

Date of Interview: ____/____/____

Interviewer's Name

Interviewee's Name

Personal Details

Participating Child's Details

Child's Name

Child's Date of Birth

Child's Home Address.....

Child's Birth Parents

Mother's Name

Mother's Home Address

Mother's Phone Contact

Father's Name

Father's Home Address

Father's Phone Contact

Child's Primary Caregiver's (if different from above)

Female Carer's Name

Home Address.....

Phone Contact

Relationship to the child

Male Carer's Name

Home Address

Phone Contact

Relationship to the child

Form of Disclosure and Informed Consent

Title of Project: Let's Start Preschool Program
Names of Investigators: Dr Gary Robinson
Child's Name:.....
Let's Start Child's ID:

Let's Start Exploring Together Preschool Program aims to help parents and children improve their relationships so that the children can get along better with others at school. Prior to the commencement of the Program, each parent-child pair will attend an individual introductory session where the procedures of the program will be explained and all questions answered. During the program, the participating parent will be required to attend a parents' group. The aim of this group is to help parents to help their children. At the same time each child will attend a children's group to learn social skills. During the last three-quarters of an hour of each session, the parents and children's groups will join together to discuss the activities of each group and to discuss any homework to be completed.

The Program will consist of eight to 10 sessions. There will also be occasions for partner participation held during the Program, which can include significant family members or close family friends. At the end of the program, the parent and child will attend a feedback session with the leaders.

The Program will require that both parent and child participants complete some questionnaires and interviews, before the program begins and upon completion of the Program. The questionnaires enable us to see whether the Program is working and in what way it might be improved. The information obtained from questionnaires and from program records will be used to prepare research reports on the program. No persons will be identified in such reports.

I, (parents name) agree to the participation of my child(child's name) and myself in the Let's Start Preschool Program to be conducted at (Location) on(day of week) from to (time of day) during (months, year). I have been fully informed on the nature and aims of the Program and the procedure involved in the evaluation of the program. I consent to the use of any photos and audio visual recordings of myself and my child for the Program's promotional and training purposes. I am aware that I may choose to withdraw from the program at any stage. I recognise that all necessary steps will be taken to ensure that our anonymity is maintained.

Signed: Date:

Witness: Date:

Release of Information Form

I hereby authorise teachers and staff at (name of school/organisation), to communicate with the Let's Start team regarding (child's name).

I further consent to the release of information on attendance and demographic details held by the School, NT DEET, NTDHCS and/or my community health centre to assist the Let's Start Preschool Program and its evaluation.

Signature: Date
Witness: Date

Let's Start Evaluation

Booklet Two

Parent Interview and Demographic Questionnaire

The Questionnaire

Let's Start Child ID



Date of Interview: ____/____/____

Interviewer's Name:

Please indicate who is being interviewed

- (1) ☐ Mother
- (2) ☐ Father
- (3) ☐ Primary Caregiver
- (4) ☐ Other (please specify)

Please indicate who will be attending the Let's Start program

- (1) ☐ Mother
- (2) ☐ Father
- (3) ☐ Primary Caregiver
- (4) ☐ Other (please specify)

Instructions *The following questions are information about yourself and your child. Please answer the questions to the best of your ability. All your responses are kept confidential.*

Section A: Child's Details

- 1. What is the child's age
- 2. What is the child's gender
 - (1) ☐ Male
 - (2) ☐ Female
- 3. What grade is the child currently in at School
- 4. Is the Child Indigenous
 - (1) ☐ Yes
 - (2) ☐ No
 - (3) ☐ Other (please specify).....
- 5. How is the child going with their schoolwork
 - (1) ☐ Poor
 - (2) ☐ Average
 - (3) ☐ Good
- 6. How often does parent/carer have contact with child's school
 - (1) ☐ Never

- (2) ☐ Seldom
 (3) ☐ Often Reason

Section B: Child's Birth Parents

Mother's Details

7. What is the highest education level mother has achieved
 (1) ☐ Primary or equivalent
 (2) ☐ Secondary or equivalent
 (3) ☐ Other (please specify)
8. What is the current employment status of birth mother
 (1) ☐ Employed – Full time (4) ☐ Employed – part time
 (2) ☐ Home Duties (5) ☐ Retired
 (3) ☐ Unemployed (6) ☐ Other (please specify)

9. What is the current marital status of birth mother
 (1) ☐ Married (4) ☐ Divorced
 (2) ☐ Single (5) ☐ Defacto (living with another)
 (3) ☐ Separated (6) ☐ Widowed
10. What is Mother's affiliation/skin group

11. What is mother's cultural group

Father's Details

12. What is the highest education level father has achieved
 (1) ☐ Primary or equivalent
 (2) ☐ Secondary or equivalent
 (3) ☐ Other (please specify)
13. What is the current employment status of birth father
 (1) ☐ Employed – Full time (4) ☐ Employed – part time
 (2) ☐ Home Duties (5) ☐ Retired
 (3) ☐ Unemployed (6) ☐ Other (please specify)

14. What is the current marital status of birth father
 (1) ☐ Married (4) ☐ Divorced
 (2) ☐ Single (5) ☐ Defacto (living with another)

- (3) ☐ Separated (6) ☐ Widowed
15. What is father's affiliation/skin group
.....
16. What is father's cultural group
.....
17. What is the current marital status of birth parents
- (1) ☐ Married (4) ☐ Divorced
(2) ☐ Single (5) ☐ Defacto (living with another)
(3) ☐ Separated (6) ☐ Widowed

Section C: Child's Primary Caregivers Details (if different to above)

18. What is primary caregiver's gender
- (1) ☐ Male
(2) ☐ Female
19. What is the highest education level primary carer has achieved
- (1) ☐ Primary or equivalent
(2) ☐ Secondary or equivalent
(3) ☐ Other (please specify)
20. What is the current employment status of primary carer
- (1) ☐ Employed – Full time (4) ☐ Employed – part time
(2) ☐ Home Duties (5) ☐ Retired
(3) ☐ Unemployed (6) ☐ Other (please specify)
.....
21. What is the current marital status of primary carer
- (1) ☐ Married (4) ☐ Divorced
(2) ☐ Single (5) ☐ Defacto (living with another)
(3) ☐ Separated (6) ☐ Widowed
22. What is primary carer's affiliation/skin group
.....
23. What is primary carer's cultural group
.....

Section D: Family Medical Problems

24. Do parents or primary caregivers suffer from any of the following medical condition
- (1) ☐ Drug/alcohol addiction

- (2) ☐ Cancer
- (3) ☐ Diabetes
- (4) ☐ Heart Trouble
- (5) ☐ Other (please specify)

The next questions ask about the child's birth and growing up

Section E: Pregnancy and Birth

- 25. What was the age of mother at birth of child
- 26. Did the mother take medicine during the pregnancy
 - (1) ☐ No
 - (2) ☐ Yes (please specify what kind)
- 27. Did the mother drink alcohol during the pregnancy
 - (1) ☐ No
 - (2) ☐ Yes (please specify)
- 28. Did the mother use drugs during the pregnancy
 - (1) ☐ No
 - (2) ☐ Yes (please specify)
- 29. Did the mother smoke cigarettes during pregnancy
 - (1) ☐ No
 - (2) ☐ Yes (please specify)
- 30. Were there any birth complications
 - (1) ☐ No
 - (2) ☐ Yes (please specify)
- 31. Was the child born premature
 - (1) ☐ No
 - (2) ☐ Yes (please specify)

Section F: Child Health and Development

- 32. Any worries about the child's development (growing up)
 - (1) ☐ No
 - (2) ☐ Yes (please describe)
- 33. Does the child wet the bed
 - (1) ☐ No
 - (2) ☐ Yes
- 34. Any major injury or illness the child has had
 - (1) ☐ No

- (2) ☐ Yes (please specify)
35. Has the child been hospitalised for any reason
 (1) ☐ No
 (2) ☐ Yes (please specify)
36. Is the child receiving special assistance or treatment now
 (1) ☐ No
 (2) ☐ Yes (please specify)
37. Is Mother currently pregnant
 (1) ☐ No
 (2) ☐ Yes (due date)
38. Has a brother/sister been born recently in the last 12 months
 (1) ☐ No
 (2) ☐ Yes (please indicate when)

The following questions ask about things that happen in the family or community that might have been a problem for your child.

Section G: Child's Background Experience

39. Have birth parents separated
 (1) ☐ No
 (2) ☐ Yes (please specify date)
40. Have there been deaths of family members/others the child has been affected by
 (1) ☐ No
 (2) ☐ Yes (specify relationship to child)
 (specify cause of death).....
41. Has the child lived in more than one community
 (1) ☐ No
 (2) ☐ Yes (please specify)
42. Has the child been taken into foster care
 (1) ☐ No
 (2) ☐ Yes (please specify)
43. Has there been any violence towards the child
 (1) ☐ No
 (2) ☐ Yes (please specify)
44. Has child been exposed to suicide talk or threats by family members
 (1) ☐ No

- (2) ☐ Yes (please specify)
45. Has the child threatened to hurt him/herself
- (1) ☐ No
- (2) ☐ Yes (please specify)

The following questions ask about things that might have been a worry for you or your family.

Section H: Family Background

46. Has there been any violence between the parents
- (1) ☐ No
- (2) ☐ Yes (please specify).....☐ Current ☐ past
47. Are there a lot of fights or arguments resulting in damage to house
- (1) ☐ No
- (2) ☐ Yes (please specify).....☐ not often ☐ often ☐ very often
48. Do parents/carers drink alcohol?
- (1) ☐ No
- (2) ☐ Yes (please specify).....
49. Any mental health problems in the family
- (1) ☐ No
- (2) ☐ Yes (please specify)
50. Have parent/s recently lost job/become unemployed
- (1) ☐ No
- (2) ☐ Yes (please specify when)
51. Have parents/carers had trouble finding enough money for food and/or bills?
- (1) ☐ No
- (2) ☐ Yes (please specify)
52. Is there overcrowding at home
- (1) ☐ No
- (2) ☐ Yes (please specify)
53. Child's Household composition

	Age (approx.)	Relationship to child
Person 1		
Person 2		
Person 3		
Person 4		
Person 5		
Person 6		
Person 7		
Person 8		
Person 9		
Person 10		
Person 11		

Section I: Ngari-P

Below are a number of statements describing children's behaviour? Please **circle** the number that best describes **how often** your child **currently** shows the behaviour. You don't need to sit and think about the answer to each question. There are not right or wrong answers and we are simply interested in your first response.

		How often does this occur with your child?	
1. Refuses to go to school	Never	1 2 3 4 5 6	Always
2. Is rude, not polite	Never	1 2 3 4 5 6	Always
3. Does jobs/work when you ask	Never	1 2 3 4 5 6	Always
4. Tells lies	Never	1 2 3 4 5 6	Always
5. Gets angry when can't do what he/she wants to do?	Never	1 2 3 4 5 6	Always
6. Fights with brothers and sisters	Never	1 2 3 4 5 6	Always
7. Talks back to grown ups, backchats	Never	1 2 3 4 5 6	Always
8. Cries for things	Never	1 2 3 4 5 6	Always
9. Gets wild, boils up	Never	1 2 3 4 5 6	Always
10. Stays up late at night	Never	1 2 3 4 5 6	Always
11. Swears at parents	Never	1 2 3 4 5 6	Always
12. Yells, screams, uses loud voice	Never	1 2 3 4 5 6	Always
13. Hits, threatens to hit parent	Never	1 2 3 4 5 6	Always
14. Breaks or damages things on purpose	Never	1 2 3 4 5 6	Always
15. Starts trouble with other children	Never	1 2 3 4 5 6	Always
16. Says he will kill him/herself, make self die	Never	1 2 3 4 5 6	Always
17. Has trouble playing with other children	Never	1 2 3 4 5 6	Always
19. Steals	Never	1 2 3 4 5 6	Always
20. Wants attention, talks a lot	Never	1 2 3 4 5 6	Always
21. Breaks in when others are talking or playing	Never	1 2 3 4 5 6	Always
22. Finds it hard to do one thing right through	Never	1 2 3 4 5 6	Always
23. Humbugs other on purpose	Never	1 2 3 4 5 6	Always
24. Has one or more good friends	Never	1 2 3 4 5 6	Always
25. Does things without thinking first	Never	1 2 3 4 5 6	Always
26. Misses school	Never	1 2 3 4 5 6	Always
27. Acts shy or frightened, hides from people	Never	1 2 3 4 5 6	Always
28. Do you have to growl at him/her?	Never	1 2 3 4 5 6	Always
29. Clings or sticks to parent, follows and won't let go	Never	1 2 3 4 5 6	Always
30. Blames other people/children for trouble	Never	1 2 3 4 5 6	Always
32. Fights with other children	Never	1 2 3 4 5 6	Always

33. Gets jealous of others	Never	1	2	3	4	5	6	Always
34. Angry face, won't talk, sulks	Never	1	2	3	4	5	6	Always
35. Complains about being picked on by others	Never	1	2	3	4	5	6	Always
36. Cares about, helps other people	Never	1	2	3	4	5	6	Always

Section J: Strengths and Difficulties Questionnaire

This is a different questionnaire, although it has some of the same questions again. It would help us if you answered all items as best you can even if you are not absolutely certain or the items seem daft! For each item please mark the box for Not True or Certainly True. Please give your answers on the basis of the child's current behaviour.

	Not true (1)	Somewhat true (2)	Certainly True (3)
37. Considerate of other people's feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Restless, overactive, cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Often complains of headaches, stomach aches or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Shares readily with other children (treats, toys, pencils etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Often has temper tantrums or hot tempers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. Rather solitary, tends to play alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. Generally obedient, usually does what adults request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. Many worries, often seems worried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. Helpful if someone is hurt, upset or feeling ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. Constantly fidgeting or squirming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. Has at least one good friend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. Often fights with other children or bullies them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. Often unhappy, downhearted or tearful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. Generally liked by other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. Easily distracted, concentration wanders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. Nervous or clingy in new situations, easily loses confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. Kind to younger children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. Often argumentative with adults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. Picked on or bullied by other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56. Often volunteers to help others (parents, teachers, other children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. Can stop and think things over before acting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58. Can be spiteful to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59. Gets on better with adults than with other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60. Many fears, easily scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61. Sees tasks through to end, good attention span	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Let's Start Evaluation

Teacher Behaviour Rating Form
PRE Assessment

Let's Start Child ID

Date: ____/____/____

Interviewer's Name (if applicable):

Teacher/Referrer Details

Teacher/Referrer Name Teacher/Referrer Title

Organisation/School Name

Postal Address of Organisation/School.....

Phone Contact of Organisation/School.....

Teacher/Referrer's Email address.....

Child's Details

Child's Name:

Child's Date of Birth: ____/____/____ Date of Interview: ____/____/____

Interviewer's Name (if applicable):

Section A: Teacher/Referrer Details

- 1) Are you of Aboriginal or Torres Strait Island descent?
(1) ☐ Yes
(2) ☐ No
- 2) Did you complete this form?
(1) ☐ Yes
(2) ☐ No
- 3) If No, who else completed this form with you?
(1) ☐ interviewer
(2) ☐ other (please specify)
- 4) What is your occupation?
(1) ☐ Teacher of referred child
(2) ☐ Other (please specify)

Section B: Child Details

- 5) At school how is the child doing academically
(1) ☐ poor
(2) ☐ average
(3) ☐ good
- 6) Is the child missing school
(1) ☐ never (2) ☐ sometimes (3) ☐ often
Reason
- 7) Does the parent/primary carer contact the school
(1) ☐ never (2) ☐ sometimes (3) ☐ often
Reason

Section C: Ngari-P Teacher version

Below are a number of statements describing children's behaviour. Please answer all items as best you can even if you are not absolutely certain or the items seem daft! Circle the number that best describes **how often** referred child **currently** shows the behaviour.

		How often does this occur with child?	
1. Obeys school rules on his or her own	Never	1 2 3 4 5 6	Always
2. Sulks, angry face and won't talk	Never	1 2 3 4 5 6	Always
3. Starts trouble with other children	Never	1 2 3 4 5 6	Always
4. Acts withdrawn, shy or frightened	Never	1 2 3 4 5 6	Always
5. Lies, doesn't tell truth	Never	1 2 3 4 5 6	Always
6. Gets cranky or upset if can't do work	Never	1 2 3 4 5 6	Always
7. Wastes time doing something when told	Never	1 2 3 4 5 6	Always
8. Looks sad, unhappy	Never	1 2 3 4 5 6	Always
9. Gets angry when can't do what he/she wants to do	Never	1 2 3 4 5 6	Always
10. Plays alone, has no friends	Never	1 2 3 4 5 6	Always
11. Interrupts teacher	Never	1 2 3 4 5 6	Always
12. Has temper tantrums, gets wild	Never	1 2 3 4 5 6	Always
13. Does not finish his/her work	Never	1 2 3 4 5 6	Always
14. Swears at teacher	Never	1 2 3 4 5 6	Always
15. Finds it hard to do one thing right through	Never	1 2 3 4 5 6	Always
16. Doesn't like criticism, correction or being told	Never	1 2 3 4 5 6	Always
17. Talks back to teachers, backchats	Never	1 2 3 4 5 6	Always
18. Acts bossy with other students	Never	1 2 3 4 5 6	Always
19. Argues with other children	Never	1 2 3 4 5 6	Always
20. Cries for things	Never	1 2 3 4 5 6	Always
21. Gets into fights with other children	Never	1 2 3 4 5 6	Always
22. Argues with teachers about rules	Never	1 2 3 4 5	Always
23. Quiet, won't speak or talk up when asked	Never	1 2 3 4 5 6	Always
24. Interrupts other children	Never	1 2 3 4 5 6	Always
25. Has trouble waiting turn	Never	1 2 3 4 5 6	Always
26. Seems to have worries	Never	1 2 3 4 5 6	Always
27. Breaks things on purpose	Never	1 2 3 4 5 6	Always
28. Daydreams in class	Never	1 2 3 4 5 6	Always
29. Fidgets or squirms in seat (can't sit still)	Never	1 2 3 4 5 6	Always
30. Does not listen when told what to do	Never	1 2 3 4 5 6	Always
31. Is easily annoyed, gets cranky easily	Never	1 2 3 4 5 6	Always
32. Appears uninterested, doesn't join in work	Never	1 2 3 4 5 6	Always
33. Refuses to obey until threatened with punishment	Never	1 2 3 4 5 6	Always

		How often does this occur with child?					
34. Has trouble playing with other children	Never	1	2	3	4	5	6 Always
35. Stubborn, won't do things when told	Never	1	2	3	4	5	6 Always
36. Complains about, or blames others for trouble	Never	1	2	3	4	5	6 Always
37. Does things without thinking first	Never	1	2	3	4	5	6 Always
38. Makes noise, disturbs others in class	Never	1	2	3	4	5	6 Always
39. Humbugs others on purpose	Never	1	2	3	4	5	6 Always
40. Does not join in with other children	Never	1	2	3	4	5	6 Always
41. Has trouble paying attention, listening in class	Never	1	2	3	4	5	6 Always
42. Hits, threatens to hit teacher	Never	1	2	3	4	5	6 Always
43. Talks too much	Never	1	2	3	4	5	6 Always

Section D: Strengths and Difficulties Questionnaire – as for parents

Properties, Strengths and Difficulties Questionnaire

Zubrick et al. (2006) and De Maio (Maio et al., 2005) have reported extensively on the psychometric properties of the Strength and Difficulties Questionnaire used here. Zubrick et al. (2006) reported subscale and total scale reliabilities based on the method described by Raykov. Subscale internal reliabilities ranged from .60 (Peer Problems) to .83 (Hyperactivity) with Total Scale internal reliability being excellent (.94). The authors noted considerable variability in internal reliability coefficients of each of the SDQ subscales by level of relative isolation (Urban to Extremely Remote). However, the SDQ Total Score internal reliabilities were uniformly excellent across all levels of relative isolation (.94). Zubrick et al. (2005a) also reported good criterion validity of Aboriginal parent reports of SDQ child emotional and behavioural problems through linkage of SDQ results to the Western Australian Mental Health Information System. Children rated by their parents to have clinically significant emotional and behavioural problems on the SDQ were over 4 times more likely to have had previous contact with the Western Australian mental health service relative to those children with SDQ total scores in the normal range.

Properties K6 for Parents

Kessler 6

(from www.qcmhr.uq.edu.au/worc/measure.htm, accessed 31.08.08)

The Kessler 6 (K6) scale is a quantifier of non specific psychological distress. The K6 questions originate from Item Response Theory (IRT) and were initially developed from pilot survey results.

A6. During the <u>past 4 weeks</u> (28 days), how much of the time did you feel...	All of the time	Most of the time	Some of the time	A little of the time	None of the time
A6a. ...so sad nothing could cheer you up?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A6b. ...nervous?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A6c. ...restless or fidgety?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A6d. ...hopeless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A6e. ...that everything was an effort?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A6f. ...worthless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

It has demonstrated excellent internal consistency and reliability (Cronbach's alpha = 0.89). It also has consistent psychometric properties across major socio-demographic sub samples and strongly discriminates between community cases and non cases of DSM-IV/SCID disorders as determined by the areas under the Receiver Operating Characteristic (ROC) curve. Each of the six items on the questionnaire are rated by the respondent on a five-point scale. The K6 was scored using the unweighted sum of answer responses, where responses of 'none of the time' were zero to 'all of the time being' yielding a score of four. Thus the range of responses was 0 to 24. Using the K6, respondents were classified by being at low, moderate, high or very high risk. A K6 score of 12 to 24 was considered very high risk as this range has a stratum-specific likelihood ratios (SSLR) of 8.9 to 65.

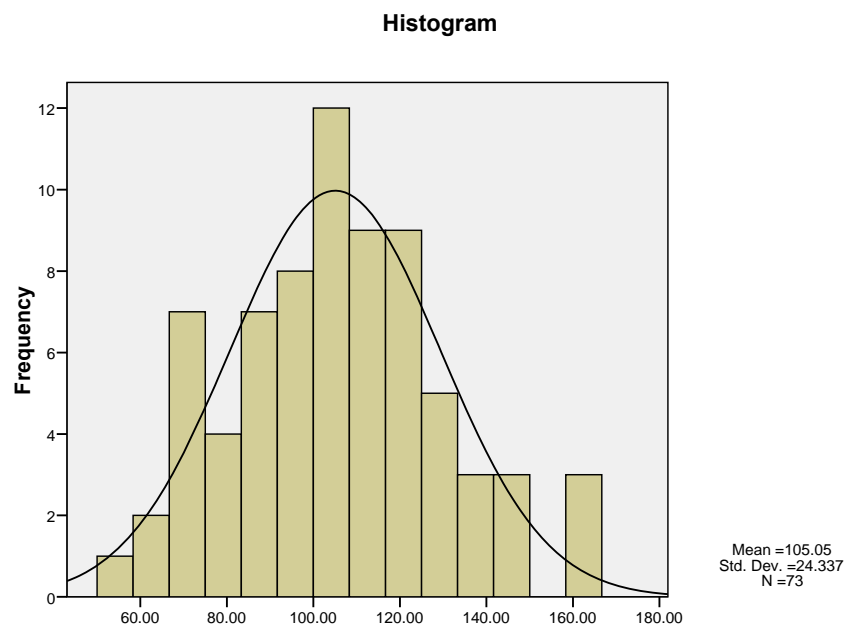
Appendix 4: Properties of Ngari-P Parent Report Scale*.

After reverse coding three of the items and allowing for some missing data there were 73 usable questionnaires. One question (Item 6) requires the child to have brothers and sisters – this creates structural zeros in the data matrix when a child has no brothers or sisters to fight with. Item retention is to be reviewed.

Table 19: Calculation of total behaviour score

Total behaviour score

N	Valid	73
	Missing	25
Mean		105.0548
Median		105.0000
Std. Deviation		24.33727



The distribution is acceptable for the number of cases (73), particularly considering the challenges of culture and place. Item correlations with the total score appear above. These are important because they tell you which items more commonly correlate with the total score. Look first in the range of $r \geq 0.6$ and then in the range of 0.50 – 0.59. As correlations drop below 0.4 you are being told that relative little of the variance contributes to the total score. A preliminary factor analysis proved to be impossible. The data are too few to permit a good solution. However, a hierarchical cluster analysis treating the variables as if they were interval scale, produced good qualitative information.

Table 20: Item total correlations, Ngari-P parents' scale

	Total behaviour score		
	Pearson Correlation	Sig. (2-tailed)	N
Q11 Swears at parents	.662	.000	73
Q32 Gets jealous of others	.647	.000	73
Q12 Yells, screams, uses loud voice	.646	.000	73
Q13 Hits, threatens to hit parent	.635	.000	73
Q7 Talks back to grown ups, backchats	.632	.000	73
Q31 Fights with other children	.588	.000	73
Q9 Gets wild, boils up	.574	.000	73
Q17 Has trouble playing with other children	.558	.000	73
Q15 Starts trouble with other children	.552	.000	73
Q8 Cries for things	.527	.000	73
Q28 Do you have to growl at him/her?	.525	.000	73
Q6 Fights with brothers and sisters	.517	.000	73
Q14 Breaks or damages things on purpose	.510	.000	73
Q4 Tells lies	.483	.000	73
Q34 Complains about being picked on by other children	.474	.000	73
Q23 Humbugs (pesters, annoys) others on purpose	.465	.000	73
Q18 Stubborn, won't do things when told	.458	.000	73
Q5 Gets angry when he/she can't do what he/she wants to do?	.457	.000	73
Q30 Blames other people/children for trouble	.457	.000	73
Q26 Misses school	.444	.000	73
Q19 Steals	.429	.000	73
Q33 Angry face, won't talk, sulks	.418	.000	73
Q25 Does things without thinking first	.415	.000	73
Q10 Stays up late at night, wont go to bed	.395	.001	73
Q2 Is rude, not polite	.375	.001	73
Q1 Refuses to go to school	.361	.002	73
Q16 Says he will kill him/herself, make him/herself die	.313	.007	73
Q22 Finds it hard to do one thing right through	.304	.009	73
Q3R Won't do jobs/work when you ask	.299	.010	73
Q21 Breaks in when others are talking or playing	.278	.017	73
Q20 Wants attention, talks a lot	.264	.024	73
Q29 Clings or sticks to parent, follows and won't let go	.239	.041	73
Q24R Does not have one or more good friends	.214	.070	73
Q27 Acts shy or frightened, hides from people	.043	.716	73

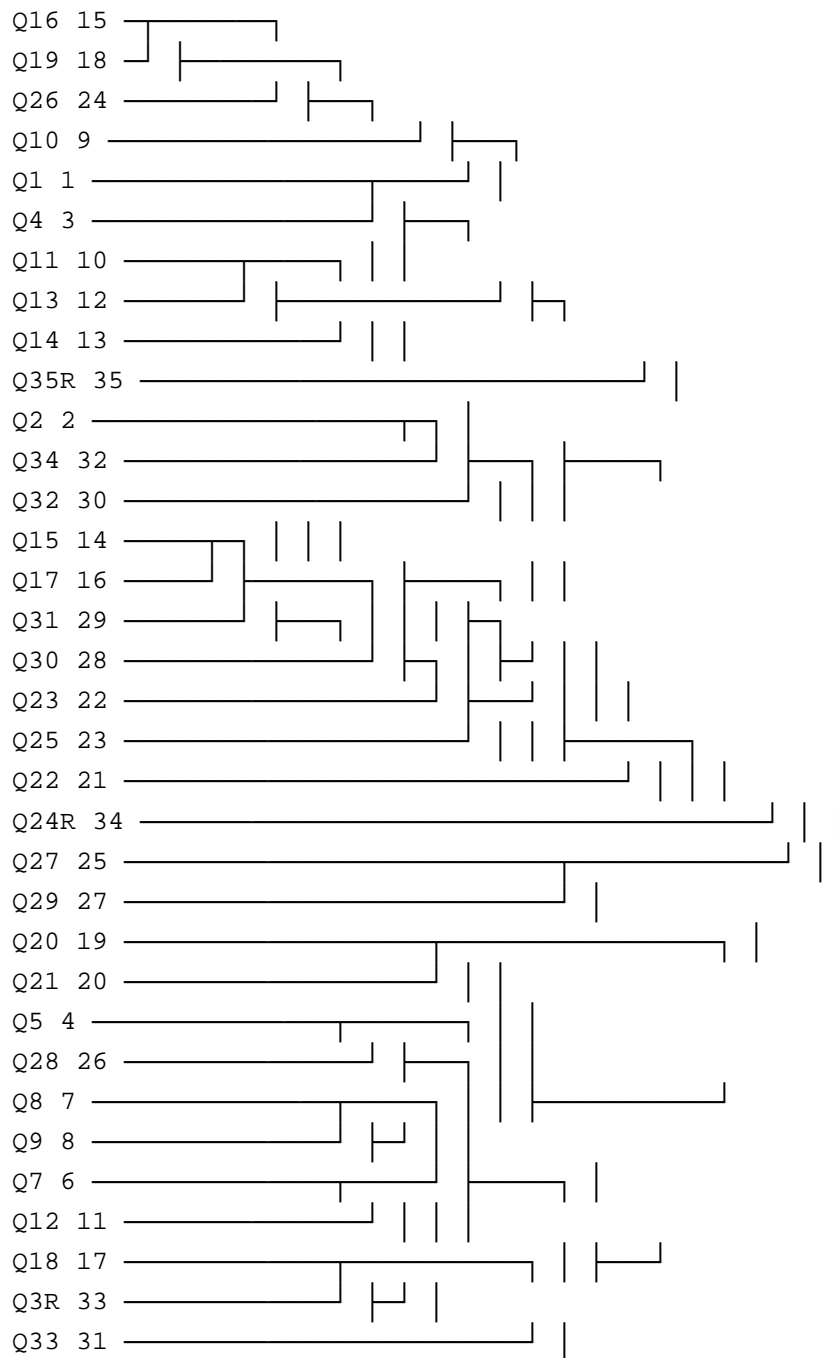
Appendix 5: Hierarchical Cluster Analysis

Dendrogram using Average Linkage (Between Groups)

Rescaled Distance Cluster Combine

C A S E 0 5 10 15 20 25

Label Num +-----+-----+-----+-----+-----+



Cluster analysis allows a rather qualitative approach using a quantitative method that involves fewer parametric and distributional assumptions. It remains reasonably close to the data. There are about three clusters that appear to emerge from the data.

The first cluster is comprised of items that define 'high end' and confronting behaviours. Early violence is evident along with the emergent signs of what is often identified as delinquent behaviour. Note there is implicit aggression here, but the more aggressive items are in another cluster. These could be termed conduct problems.

- Q16 'Says he will kill him/herself, make him/herself die'
- Q19 'Steals'
- Q26 'Misses school'
- Q10 'Stays up late at night, wont go to bed'
- Q1 'Refuses to go to school'
- Q4 'Tells lies'
- Q11 'Swears at parents'
- Q13 'Hits, threatens to hit parent'
- Q14 'Breaks or damages things on purpose'
- Q35r 'Does not cares about, or help other people'.

(Alpha is .76)

The second cluster really rather looks at the child who is, at one level, an 'attention-seeker' or an 'attention-getter'. We see signs of anxiety and withdrawal along with problems more firmly grounded in social difficulties:

- Q2 'Is rude, not polite'
- Q34 'Complains about being picked on by other children'
- Q32 'Gets jealous of others'
- Q15 'Starts trouble with other children'
- Q17 'Has trouble playing with other children'
- Q31 'Fights with other children'
- Q30 'Blames other people/children for trouble'
- Q23 'Humbugs (pesters, annoys) others on purpose'
- Q25 'Does things without thinking first'
- Q22 'Finds it hard to do one thing right through'
- Q24r 'Does not have one or more good friends'
- Q27 'Acts shy or frightened, hides from people'
- Q29 'Clings or sticks to parent, follows and won't let go'

(Alpha is .73)

The final cluster really looks to define defiant and oppositional types of problems with high affect and anger:

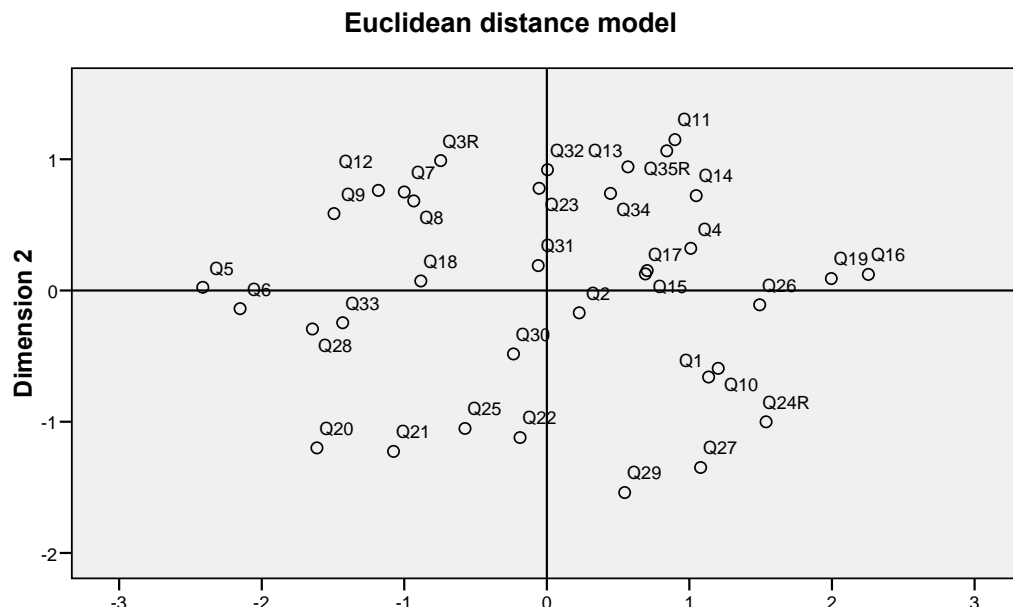
- Q20 'Wants attention, talks a lot'
- Q21 'Breaks in when others are talking or playing'
- Q5 'Gets angry when he/she can't do what he/she wants to do?'
- Q28 'Do you have to growl at him/her?'
- Q8 'Cries for things'
- Q9 'Gets wild, boils up'
- Q7 'Talks back to grown ups, backchats'
- Q12 'Yells, screams, uses loud voice'
- Q18 'Stubborn, won't do things when told'
- Q3r 'Won't do jobs/work when you ask'
- Q33 'Angry face, won't talk, sulks'
- Q6 'Fights with brothers and sisters'

(Alpha is .79)

The Cronbach's alpha values for these clusters are more than acceptable at $>.70$.

The data are as yet too slender to support a full factor analytic approach. For example, the KMO was only .574 indicating that the correlation matrix was poorly conditioned for factor analysis. This is hardly surprising with only 73 cases. Twelve factors were also extracted, six of which would be retained in a scree plot assessment (about 44% of the common factor variance). Nevertheless, the emerging factor structure hints at good convergence with clinical experience and literatures describing item pools underlying emotional and behavioural measures.

Derived Stimulus Configuration



Alternatively, a Euclidian Distance multidimensional scaling of the items (again, a non-parametric approach to the data), selecting a two-dimensional solution, resulted in a good profile of the items that lines up comfortably with the cluster analysis.

Preliminary conclusions

Preliminary indications are that the NGARI-P scale provides an appropriate measure of children's problem behaviour, both overall and in a number of domains that correlate with behavioural and emotional problems identified in the relevant literature. The cluster analysis gives some indication of the potential to differentiate dimensions of change in conjunction with other analyses.

These analyses are to be followed by fuller exploration of the psychometric properties of instruments used in this evaluation with all available data.

Steve Zubrick
19 March 2008

Appendix 6: Budget, Invest to Grow Grant

Item	2004–2005 (Actual)	2005–2006 (Actual)	2006–2007 (Actual)	2007–2008 (Actual)	Total cost (excluding GST)
a. Salaries	13,579	164,835	149,667	94,152	422,233
Consultancy*			14,154	34,209	48,363
Overheads	8,846	17,692	17,692	17,692	67,922
Travel, Accommod.	1,463	14,697	29,056	33,943	79,159
Materials		5,000		763	5,763
Resources		5,516	2,584	2,000	10,100
Vehicle Hire	35,710			4,581	40,291
Vehicle running costs		1,265	2,291	4,000	7,556
TOTAL Expenditure	59,598	210,270	215,444	191,340	681,387
Grant Income	50,751	224,021	211,540	198,100	681,142

* In 2006–2007 and 2007–2008, Consultancy includes payments to persons employed as group leaders or to provide services, not employed by CDU, payments direct or through third party employers.

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