

Ngaripirliga'ajirri

# An early intervention program on the Tiwi Islands

Final Evaluation Report



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School for Social and Policy Research  
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**Social & Policy**  
**Research**



Ngaripirliga'ajirri: An Early Intervention Program on the Tiwi Islands, Final Evaluation Report.

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## Executive Summary

Ngaripirliga'ajirri (pronounced Naripirlywa-tirri) is the Tiwi name given to an early intervention program for Tiwi children of primary school age, based on the Exploring Together program (Littlefield, Trinder et al. 2000). The Exploring Together Program was originally selected for adaptation by the Tiwi Health Board and implemented as Ngaripirliga'ajirri from 2000-2004 in three Tiwi primary schools.

The project was funded by the Commonwealth Department of Health and Ageing, with extension funding by *beyondblue: the national depression initiative* and the Commonwealth Department of Family and Community Services. The evaluation of the project was funded by the Cooperative Research Centre for Aboriginal and Tropical Health and the NT Department of Health and Community Services.

Exploring Together is a targeted 10 week multi-group program based on developmental principles. Children are referred by teachers and other practitioners, and attend the program in groups of 6-8 children with one parent each, over a school term. It includes concurrent groups for children and parents, focusing on child social skills training and parenting management training, respectively. The program draws on cognitive behavioural theory. The work with children focuses on social skills, while the work with parents focuses on the formulation of behaviour management strategies for them to implement at home. In addition to the parents' and children's groups, there is a combined group which focuses on parent-child interaction, encouraging working together and providing opportunities for adults and children to join in role plays, tasks and games relevant to key issues.

Exploring Together was redeveloped for the circumstances of Tiwi culture and its complex family structures. A manual and materials, to be used alone or in conjunction with The Exploring Together Manual, are available on request.

With the collaboration of Tiwi team members, the program was developed to respond to key themes and understandings within Tiwi family life. For reasons discussed in this report, the focus has shifted somewhat from behaviour management plans to address family functioning and social relationships. The program identifies important transitions relating to death, marital separation, foster-parent arrangements and specific relationship issues which have a bearing on the child's care and wellbeing – and on his or her symptomatic behaviour. Parents act in complex family settings in which care and responsibility for children are dispersed among many kin, including grandparents, parents' siblings, children's own elder siblings and other members of the mothers' and fathers' lineages. In this context, a style of parenting has been identified which is referred to as passive-avoidant parenting. It is a particular challenge to assist parents who withdraw or avoid difficulty. Analysis of cases indicates that arrangements for care of children and changes to them are often associated with stress or difficulty. Children may

show opposition to them through disruptiveness at school or at home, or some other behaviour. Even in some cases of more deep-seated difficulty, the strategy of working to uncover processes within the family group may assist parents to deal more effectively with a child's behaviour. A key aim of the program is to encourage assertive, non-aggressive parenting. Other important concerns relate to the high incidence of marital violence and family conflict, as well as suicide, which affect many, if not all families on the Tiwi Islands, directly or indirectly.

### **The Tiwi Life Promotion Evaluation Project: Structure of report and project outputs**

After outlining context and intervention, a substantial component of the evaluation project reports on the adaptation of the program's protocol and process (Chapter 4). It also outlines a number of case studies based on participation of individual parents and children; these are important illustrations of the analysis underpinning development of the intervention strategy (Chapter 5). In addition to the development of the intervention, the evaluators redeveloped the evaluation framework, replacing a number of key evaluation measures used with Exploring Together. A process of adaptation and validation of behaviour rating instruments was commenced in 2001, resulting in utilization of measures to provide teachers' and parents' ratings of children's behaviour (Chapter 6). Finally, the links between the program and schools and health services in remote communities are considered. It is suggested that future possibilities for the implementation and development of intervention programs like Ngaripirliga'ajirri must rely on integration with existing services (Chapter 7).

### ***Outputs***

The main outputs of the Life Promotion Evaluation Project are as follows:

1. Redevelopment of the Exploring Together program for the Tiwi context:
  - a. Revised manual available on request (Robinson, Riley et al. 2004)
2. Development of reliable and valid evaluation measures:
  - a. Development of composite measure after pilots of standard behaviour instruments; see Appendices.
  - b. Psychometric data reported in electronic Data Archive; available on request
3. Evaluation of program outcomes using convergent quantitative and qualitative methods:
  - a. See electronic Data Archive.
4. Analysis of the context of program implementation and delivery.

These outputs are synthesized in the present report and appendices, with additional materials available on request. This report replaces the Interim report published in 2004 (Robinson and Tyler 2004).

## **Overview of Findings**

By December 2003, 74 children and over 80 parents and caregivers had commenced participation in the program. Findings based on their participation are reported here.

Child participation levels were above 95% of sessions, while parental participation was substantial, if somewhat lower, with a mean of 66% of sessions attended. Examination of cases indicated that factors affecting parental attendance are frequently related to issues relevant to the child's behaviour.

According to qualitative reports (responses to open-ended questions about behaviour change) from teachers and parents:

1. approximately 80% of children showed some decline in problem behaviours at school during and after attendance in the program
2. of these around 60% showed marked declines in problem behaviours
3. for around 40% of children these gains were reportedly sustained at six months
4. parents of 60-80% of children reported improved communication with child
5. parents of 50% of children reported some improvement in child behaviour at home
6. *reported* school attendance improves for children upon referral to the program, although this is not sustained for all children (n.b. *recorded* attendance at school could not be measured).

These responses need to be compared with outcomes of the formal measures. Teachers' interview reports are based on fairly clear perceptions of behavioural difficulty in the classroom context. Parents' perceptions and responses are less clearcut about the degree of change, possibly suggesting that change at home is less marked than at school, or possibly suggesting that it is more difficult to reliably measure change of child behaviour in family relationships than in the school setting. In general, the qualitative reports generally confirm findings of the formal psychometric measures reported below.

#### *Case outcomes*

Study of individual cases produced illuminates issues faced by parents and children, and point to some areas of difficulty where significant change was accomplished during the program (see Chapter 5). As indicated, the Tiwi adaptation of Exploring Together focused on the determinants of the child's behaviour in the context of Tiwi extended family life, paying attention to culturally sanctioned patterns of parental response, and ideas of responsibility for dependents within extended family systems.

Based on appraisal of cases seen, a given child's behaviour may reflect:

1. present tensions in family relationships which can either be referred to as *transitions* related to deaths, parental separations, foster-care or age-related transitions, or as characteristics of the *family system*, in which particular relationships have the effect of causing stress on the child
2. specific impacts of explicit strain or severe trauma; for example, exposure to marital violence, deaths of parents or family members by suicide or homicide; chronic substance misuse by a parent or others; direct violence towards a child
3. withdrawn or externalising behaviours, sometimes including overtly antisocial tendencies, reflecting possible disorders of varying origins; these interact with current family transitions and family processes, but are not explained by them.

Both 1. and 2. appear to be highly responsive to participation in Ngaripirliga'ajirri, with

its focus on family processes and life events such as death or separation, etc. Many Tiwi children are directly or indirectly exposed to strain as a result of suicide, violence or other causes. Their families often have clear needs for professional assistance: for example, where a child and surviving parent are coping with the suicide of a parent (4 cases); or in the case of serious relationship tensions, violence and suicide threats involving parents or other family members (more than 12 cases). The program can provide important assistance to these families. However, in some cases, it is difficult to deal with these issues fully without moving away from the focus of group work for other participants. Therefore, there are grounds for supplementation of Ngaripirliga'ajirri by provision of other services – e.g. individual, marital or family counseling currently not systematically offered, if at all, by either health or school services.

Regarding 3, there remains a need to further develop an understanding of developmental processes in the Tiwi context, with some attention to developing the team's assessment skills, its ability to read the developmental antecedents of children's presenting behaviour. This extends to some children who have experienced developmental delay, and/or have been the subject of neglect, or who have a history of neglect. Specific strategies – commencing with improved initial assessments - need to be developed within the program, and alternatives developed for those who are not likely to benefit from the program in its present form.

#### *Evaluation measures*

Pilots of evaluation measures used for Exploring Together in its original context revealed that these measures (Achenbach Child Behaviour Checklist; Parenting Scale, and others) were inappropriate for use among Tiwi respondents. Accordingly, four composite behavioural inventories were developed for evaluation purposes: these were administered at program commencement and at program end, and six months later. These inventories were a 41 item behaviour checklist for teachers and a 40 item checklist for parents, which aimed to score problem behaviours. Based on the same model, a questionnaire was designed for children which aimed to detect levels of anxiety, withdrawnness, aggression and self esteem. In addition, from early 2003, a questionnaire was administered to parents to indicate levels of anxiety and stress, and parenting styles in response to child behaviour.

In July 2003, the parents' and teachers' behaviour checklists were further revised following statistical analysis of items, with a final revision conducted in early 2004 to further explore issues of reliability and validity of the instruments. A final revision of teachers' and parents' ratings was tested over two school terms with a random sample of children not referred to the program in 2004.

#### *Quantitative Findings*

The results of the evaluation of Ngaripirliga'ajirri may be summed up according to three hypotheses:

*Hypothesis I: That the inventories employed in the Exploring Together Program are valid, stable and reliable instruments for assessing and monitoring child/pupil problem behaviours across treatment groups in the Tiwi context.*

1. Parent and teacher behaviour rating scales show high relative stability and reliability on all raters (child self-report scales abandoned).
2. Internal consistency of parent and teacher scales was exceptionally good, with very high *Cronbach's alpha* values throughout.
3. Structural stability/construct validity based on factorial structures is problematic: this is not a major issue given good distribution; there is debate in the literature about the appropriateness of factors on the parents' scale.

*Hypothesis II: That child participation in the Program has resulted in a measurable reduction in perceptions of the frequency and significance of problem behaviours.*

1. Gains in child behaviour were measured by both parent and teacher ratings, and for both Intensity and Problem Scales – as measured both by Cohen's *d* and 't'-test over a number of trials, rater types and cross-cultural contexts, and modes of assessment.
2. Statistically significant declines in problem behaviour were reported by teachers; parent reports of problem behaviours showed a non-significant downward trend with noteworthy effect size.
3. Teacher reports show evidence of substantial effect from participation in the overall program: that is, from the referral and assessment process as well through the program proper. Non-treatment effects are indicated by a significant drop in scores between referral and program commencement. There is evidence of significant continuing improvement of behaviour six months after completion.
4. There is evidence of a reduction in parental anxiety after participation in the program
5. There is indication that some self-harmful behaviours, such as threats or acts of self harm may be reduced as a result of participation in the program.

*Hypothesis III: That the patterns of response of parents, children and teachers to the Exploring Together Program will be predictable from a knowledge of their background characteristics.*

1. Covariate effects indicate general differences in responsiveness to the program, with boys showing higher levels of perceived behaviour change albeit from a higher initial level of problem behaviour than girls.
2. There emerged clear "simple structure" factorial patterns in "risk factors" (exposure to suicide, violence) and "family relationships" for the Original (referred) sample, though this was not typical of the Validation (random, non-referred) sample.
3. "Overcrowding" is associated with some positive outcomes, and needs to be examined in a cross-cultural context: both effect and factorial structure deserve further analysis with a larger sample.
4. Further research is indicated in the area of covariate effects. Findings indicate unique patterns of clustering of risk, family and household structure variables among remote Indigenous populations.

## **Conclusions**

The results of the evaluation of Ngaripirliga'ajirri indicate that it is capable of producing measurable improvements in child behaviour that are sustained at and beyond six months' follow-up. Case study analysis highlights important potentials to positively influence determinants of child behaviour and parenting strategies. These analyses also support the rationale for modification of the intervention strategy to make it responsive to themes and issues and problems encountered in the Tiwi social and cultural context. The high rates of suicide, domestic violence and substance abuse experienced by the Tiwi communities are shown in this report to contribute significantly to problems recorded among Tiwi children.

Ngaripirliga'ajirri provided a valuable support to parents and children dealing with these serious problems. It was also able to make a valuable contribution to dealing with the children's behaviour at school, and thus to improved outcomes in education and school functioning.

## ***Sustainability***

Ngaripirliga'ajirri was trialled as a stand-alone program with its own funding. There was no integration with existing school or health services, and consequently, with the reliance on short term funding, prospects for sustaining the program were diminished. Mental health and community services are presently deficient in their capacity to deliver structured interventions, while school services currently have very limited capacity to engage families and to sustain appropriate behaviour management strategies. The Ngaripirliga'ajirri program has the potential to significantly contribute to outcomes in both of these areas of service delivery. In order to integrate this preventive program in existing services, it would be necessary to review resources and priorities across the four community schools, and to build a team based substantially on positions within education and health services. A well designed strategy would substantially add to capacity in schools and health services and would justify the cost of establishing the program. There remains significant, actively expressed demand for the recommencement of the program in the Tiwi communities.

# 1. Ngaripirliga'ajirri: An early intervention program on the Tiwi Islands

## Introduction

This is the final evaluation report concerning *Ngaripirliga-ajirri, an Indigenous version of Exploring Together*. It describes the development and implementation of the Tiwi adaptation of Exploring Together and the evaluation of its outcomes for the period from June 2001 – June 2004. It incorporates some of the discussion and findings from the Interim Evaluation Report (Robinson and Tyler 2004). That report outlined the processes of the set-up, development and implementation of the program, the development of evaluation measures and preliminary findings only. The Final Report more comprehensively presents and interprets findings concerning program outcomes, including the outcomes of the development of methods and the techniques of evaluation employed.

In 1998, there were four suicides at Nguuiu, Bathurst Island. A subsequent report by the Coroner, J. Cavenagh, precipitated action by the Tiwi Health Board (THB). The Board convened a series of workshops on suicide prevention, and established a Life Promotion Team to develop youth services and a community-based mental health team to respond to these signs of crisis among young Tiwi people. The Life Promotion Team sought funding from the Commonwealth Department of Health and Ageing, to develop and run a number of programs on the Tiwi Islands. Funding was granted directly from the office of the then Minister for Health and Ageing, The Honorable Michael Wooldridge, MHR. The purpose of this funding was to support a youth leadership program, a youth crisis team, and an early intervention program. The last was to complement the crisis-responses and to form the main element of the Board's long term preventive strategy.

The program chosen by THB staff as the basis for its preventive strategy was “Exploring Together”, a multi-group intervention for parents and children developed by the Victorian Parenting Centre (Littlefield et al. 2000a). The program had been recently evaluated and the team had met personnel involved with this intervention at a conference in Melbourne. The program's focus on simultaneous participation of parents and children in the intervention was an important attraction. Funding received was sufficient to employ a program manager and a number of Tiwi project officers, and to meet expenses including travel and other material costs from March 2001 to March 2003.

The Cooperative Research Centre for Aboriginal and Tropical Health (CRCATH) held initial discussions with the Tiwi Health Board about conducting an evaluation of its youth services. It assigned a project officer to carry out consultations to establish an evaluation of the project. After the success of the funding submission, the Northern Territory University (now Charles Darwin University, CDU) was awarded a grant of \$134,389 (PH0094) by CRCATH. The evaluation was to commence in June 2001 and to conclude in June 2003. This was later supplemented by \$100,000 from the NT Department of Health and Community Services (DHCS) to enable completion of the evaluation project

and reports.

The program commenced in Terms 3 and 4 in 2001 at Nguiu, and has since then run in terms 2 (Milikapiti), 3 and 4 (Nguiu) in 2002, and has run in all terms in 2003 with further activity in 2004 enabled by extension funding from the Commonwealth Department of Family and Community Services. In the following sections, the context of development of the intervention is examined more closely, followed by an outline of the issues arising from its adaptation and implementation on the Tiwi Islands, and the process of evaluation.

### **Funding and Program Duration: Challenges and constraints**

Initial funding for the Exploring Together Program was for 2 years only:

1. Australian Government Dept Health and Ageing: \$300,000 (Program manager, Tiwi project officers (4 staff @ 50%), travel, training, materials & administration), from March 2001 – March 2003
2. *beyondblue inc.*: \$154,600 (Program manager, Tiwi project officers, travel, material & administration), from March 2003 – March 2004
3. Commonwealth Dept Family and Community Services, \$78,000 (Program manager, Tiwi project officers, travel, materials and administration. Program was extended to September 2004<sup>1</sup>.

Evaluation Funding:

1. CRCATH: \$134,389 (Chief investigator, travel, research assistance and consultants)
2. NT DHCS: \$100,000 (Research assistance, psychologist, consultants)
3. NT DHCS: \$32,000 (Chief investigator & support, 2003)

The evaluation was a combination of funded and in-kind projects of the Cooperative Research Centre for Aboriginal Health supported by funding from NT DHCS. In-kind contributions by the University included activity of the Chief Investigator, administrative support and other contributions.

The Exploring Together program is a highly structured intervention which was originally developed by psychologists, professional counselors and therapists in practice at major health care organizations in Melbourne. The Exploring Together Team included eight trainers who provided training to community-based practitioners, and for the first years of operation during its evaluation the program was led by one or more of the original design and development team (Littlefield, Burke et al. 2000). The program had never been specifically adapted for use in comparable cross-cultural settings. The Tiwi Health Board is, to the knowledge of the authors, the first Aboriginal agency which had attempted an adaptation of the program for a traditionally oriented remote indigenous population. The

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<sup>1</sup> Note that FaCS funding was for the period from January 1 2004 – June 30 2004. Unexpended *beyondblue* funds were carried over with permission of the CEO of *beyondblue*, to the period from July 1 – September 30, 2004.

project team had access to a member of the Exploring Together team (Dr Carol Woolcock) for a three day visit in 2001 for introductory training. Partly for reasons of cost, the Tiwi Health Board did not access more extensive training.

The intention of the Tiwi Health Board and of the project team was to eventually run the program in all three Tiwi communities. According to data provided by the Tiwi Health Board (June 2003), Nguiu, the largest community on Bathurst Island, has a population of approximately 1599 persons. Milikapiti, located at Snake Bay on Melville Island, is second-largest, with a population of approximately 601 persons. Pirlangimpi is located on Melville Island at the northern end of Apsley Strait and has a population of approximately 459. The total population is 2659, of whom, in any given year, there are approximately 260 children of 6 to 12 years, the target age group of the program. The implications of this population “catchment” for the program are discussed in Chapter 4.

As stated in the Interim Report, the original funding and timeframe were inadequate for development of a program of this kind in a remote community setting. Recruitment of staff and negotiation of arrangements with schools, Councils in the communities together with familiarization of all staff with the basic practices of delivery – by piloting delivery of the program - took up three of the eight initially funded school terms. In addition, instruments and measures for delivery and for evaluation of the program had to be developed. There was no opportunity to establish reliable and valid instruments before the task of measurement of change had to be undertaken. Confirmation of the validity of instruments and verification of cutoffs for assessment purposes for use with a distinctive population could not be undertaken prior to program delivery, but would, if feasible at all, need to be developed alongside the revision and delivery of the program.

Initial funding of the program, and its duration, were therefore insufficient to establish a robust research design. Supplementary funding by DHCS from 2003 enabled much important work to be done – particularly in exploring the properties of the instruments adopted – but could not entirely overcome the early design constraints.

#### ***Resources***

The program was initially established within the professional resources of the THB without access to expertise in counseling or developmental psychology or other relevant intervention disciplines. Additional expertise was supplied by the evaluation team at the University as part of the realignment of the overall evaluation project. The evaluators participated in the delivery of the program, the development of training and materials and provided research and development support for the project.

Material resources consisted of a fairly small purchase of materials for program sessions (paper, pencils, glue, toys, some posters), some donated materials (football stickers), some second hand computers and printers, and a video player and television to view audio-visual material. Facilities for providing morning teas and snacks for the children were also on hand. Finally, mobility is essential in even very small remote communities. A second-hand 8-seat van was purchased for \$4700, and used for the purpose of picking up parents to attend the program, excursions for children and families, and general team business.

Travel was a significant item of expenditure, both for Darwin based staff to deliver the program in the communities, support, the local team, etc. and for the Tiwi team members to attend team meetings and training sessions in Darwin and conferences. The Tiwi Health Board (later Tiwi Health Service) provided access to accommodation on the Islands where available.

#### *Working with Schools and Communities*

The establishment of the program involved recruitment of local Tiwi staff, negotiation of facilities and arrangements with three primary schools and one post-primary school on the Islands, establishment of links with other community organizations who donated facilities, materials and cash to support the program, and so on. Employers were approached and generally agreed to ensure that parents could have time off with pay to attend the program. A group of senior Tiwi people was convened by Berna Timaepatua. Members included people from THB's *Tiwi for Life* public health initiative, members of the Board, and some other senior people associated with the schools.

This community reference group was important for establishing community awareness of the program, and also helped to select the Tiwi name for the program, *Ngaripirliga'ajirri*. This name was translated to mean "working together to clear a path for the future". It conveys a reference to the clearing of the dancing ground, the *milimika* for Tiwi traditional initiation ceremonies, *kurlama*. This resonated with a pre-existing group responsible for behaviour management policies at MCS, the *Milimika Group*.

Tiwi staff working with the delivery team were paid by a combination of program funding and top-up income from the Community Development Employment Program (CDEP), subject to an enterprise bargaining agreement of the Tiwi Health Board (and later, the Tiwi Islands Health Service) which met the difference between the agreed THB rate and (lower) CDEP rates for all hours worked. In short, adaptation of the program for the Tiwi Islands entailed the building of a framework within the community to support the activity, that is, capacity building at community and agency level.

The project originated in the health sector and was not sponsored by the NT Department of Employment, Education and Training (DEET). However, the chief partners of the project were the community schools. The links with the school sector were developed through direct approach by the team manager to the principals of participating schools. Formal contact with DEET and with the Catholic Education Office occurred later in the program's course. Where possible the schools provided access to rooms; in some cases, it was necessary to find rooms in other buildings owned by Community Government Councils or the health centres.

Nguiu was founded by the Catholic Church in 1911 and was the site of a mission until the 1980's. It now has two schools, a primary school called Murrupurtiyanuwu Catholic School (MCS) and a post-primary school called St Xavier Community Education Centre (St Xavier C.E.C.), both funded and managed by Catholic Education Office, NT, Darwin. The primary school has a Tiwi principal and deputy principal, and in the post-primary school, had a non-Tiwi principal and a Tiwi assistant principal until 2002. These schools

are both bi-lingual, with materials produced by the *Nguiu Nginingawila Literature Production Centre*. Tiwi teachers teach in all classrooms, teaching alongside non-Tiwi teachers in some classes. The other two communities have primary schools funded and managed by the Indigenous Education Branch of the Northern Territory Department of Employment, Education and Training. These are not bi-lingual and do not employ Tiwi as teachers. Rather, a number of Tiwi are employed as teaching aides, funded by the Community Employment Development Scheme (CDEP). Tiwi culture and dance may from time to time be taught in special periods on an occasional basis by senior community members.

The principal of St Xavier School, Nguiu made available under lease a building with three rooms. This was converted to become the permanent location for delivery of the Exploring Together program at Nguiu. At the other communities, a range of temporary quarters away from school were accessed for the program when running in those communities. These have been adequate but fell significantly short of desirable as locations for the program.

The initial approaches to school principals were followed by briefings of teachers at staff meetings about the purposes of the program, the basis for referral and the evaluation requirements, particularly, the request that teachers complete the behaviour checklists for referred and participating children. These meetings were generally attended by the Program Manager and Tiwi team members, along with the Evaluation project leader. In almost all cases, principals and teachers were extremely supportive: they appreciated the dialogue about behaviour management issues at the schools, and took the tasks of referral of children and feedback to evaluators very seriously. At times, during the life of the program, teachers experienced acute difficulties in particular classes or with individual students, and were clearly concerned that they were not always able to access support to deal with challenging or disruptive behaviour. The team provided support wherever it could. However, as with all preventive work, there was often a need to resist some demands for response to acute problems, in order to preserve the integrity of the program's core activities.

By the end of the extended period of delivery of the Program some of the issues had changed: they revolved around the redesign of what had been a stand-alone program for implementation in much closer alignment with resources of the health and education sectors. A future project will need to examine to what extent it is possible to draw on teachers and school support services, mental health and social workers, and others, to deliver a community-based early intervention program based on Ngaripirliga'ajirri using a higher proportion of agency resources.



## 2. Attendance, Participation and Community Support

### 2.1 The Tiwi Community Context

Traditional Tiwi society has been described in a number of ethnographies (Hart and Pilling 1960; Goodale 1971). These have included some accounts of violence in contemporary society (Robinson 1995; Venbrux 1995) and aspects of recent change in Tiwi family life and intergenerational relationships (Robinson 1997).

Tiwi society rests on a system of exogamous matrilineal clans, while patrilineal identifications permeate ritual life and conceptions of landownership, or "country". The Tiwi were noted for polygamous marriage which saw all women betrothed at or before birth, with marriage monopolized by older men who might have up to ten or more wives concurrently. Young men were inducted into an initiation process which lasted two decades or more, while males did not marry until their late thirties, and then only to older widows (Hart and Pilling 1960). Some marriages still occur as a result of semi-traditional bestowal-like arrangements. However, since the middle of the twentieth century, the traditional system has been substantially replaced by one based on monogamy, leading to a situation in which children are increasingly born to partnerships between young persons, or persons not in any stable conjugal partnership, a common transformation in polygamous societies of Australia (Burbank and Chisholm 1989; Robinson 1997).

Tiwi kinship should not be confused with "family" or family-based relatedness. All Tiwi persons (and some non-Tiwi) relate to each other as kin: that is, as members of named exogamous matrilineal groups called *imunga* (sometimes referred to as "skin groups" or "tribes") with defined kinship terms of address. *Imungas* or skin groups are in turn grouped in four exogamous semi-moieties, groups of *imunga* regarded as *natinga kama*, as one grouping of people who call each other *ngerimipi*, or in English, "relations"<sup>2</sup>.

Members of other *imunga* are one's potential "in-laws", and are addressed by the appropriate set of *affinal* terminologies, "mother-in-law", "father-in-law", "wife's uncle or aunt", etc. These we can distinguish from groupings of people who are linked by marriage and close household ties which we might loosely refer to as "family". Formal or "classificatory" kinship terminology does not always provide a clear guide to family ties, based on consanguinity and residence in one or more households. However, kinship defines the idioms of respect within which people interact in everyday life, and thus within the Program.

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<sup>2</sup> Accounts of Tiwi kinship can be found in Goodale, Jane. 1971. *Tiwi Wives: A Study of the Women of Melville Island, North Australia*. Washington: University of Washington Press.; Venbrux, Eric. 1995. *A Death in the Tiwi Islands*. London: Cambridge University Press. and others.

## 2.2 Participation in Ngaripirliga'ajirri

### Participation in the Early Intervention Program

Ngaripirliga'ajirri has been delivered over 8 school terms in two communities between term 3, 2001 and term 4, 2003. There was a break in delivery in term 1, 2003 for the purposes of consolidation of material and methods. In all, it has been run 6 times at Nguiu on Bathurst Island, and 2 times at Milikapiti on Melville Island. The program was commenced at Pirlangimpi, Melville Island, in 2003, but was shortened due to a combination of school organizational issues and cyclonic weather. At the same time, a program was run in a modified format over one school term at Nguiu and was attended by four teenagers and their families. In 2004, a pilot program was run over one school term for preschool and transition age children, to test the process for delivery of the program for younger children.

### Attendance of Parents and Children

The Program was able to achieve very high levels of participation, following referral and contact of referred children's families by team members. No parents explicitly withheld consent. However, on a number of occasions, after discussion with parents and children it was considered that living arrangements (e.g. permanency of residence) or foster-care of a particular child were such that participation was not pursued. Only 3 children were withdrawn from the program once started. One child was newly fostered to an aunt, her mother having died within the preceding months. She was extremely anxious and withdrawn and outright refused to attend the program after a third week, leaving the aunt no option but to withdraw. The other two children were very enthusiastic participants. However, the parents were not able to attend beyond the first two to three weeks: in one case for reasons associated with marital conflict; in the other case, for reasons associated with the mother's pregnancy, which led to a shift of community before the end of the school term.

**Table 1: Total days attended by parents and children in each term (excluding withdrawals)**

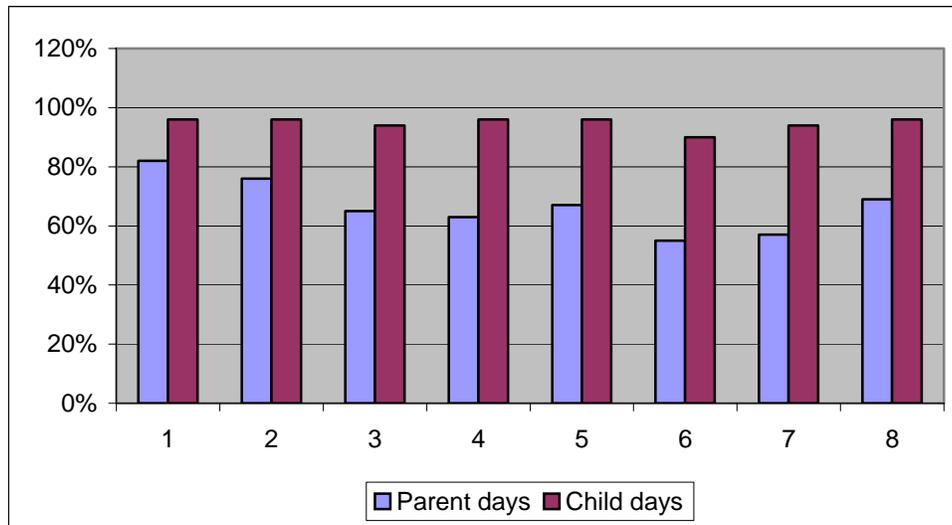
	<b>Total Started</b>	<b>Withdrawn</b>	<b>Total possible days</b>	<b>Total Parent days</b>	<b>Total Child days</b>
T4 2003	7		56	41	55
T3 2003	7		56	42	55
T2 2003	7		56	31	55
T4 2002	7		56	37	51
T3 2002	8		64	35	55
T2 2002	6		48	28	46
T4 2001	7	1	40	30	38
T3 2001	8	2	32	28	32
<b>Total</b>	<b>57</b>	<b>3</b>	<b>408</b>	<b>272</b>	<b>387</b>
<b>% Total</b>				<b>67%</b>	<b>95%</b>

By term 4, 2003, 54 children (approximately 7 per term) and a parent or caregiver had participated in the full program. Total referrals numbered over 100. An additional 19 children participated in the modified or incomplete variants of the program mentioned.

The three cases of withdrawal occurred during the first two terms in which the program was run. Some of the contingencies outlined have been better assessed at commencement during the later development of the program.

Over the eight programs run fully, parents attended 67% of a possible 408 days in the program (excluding the 3 cases of withdrawal), while children attended 95% of possible days.

**Figure 1: Days actually attended each week as percentage of days possible, all programs**



### **Children**

Children’s attendance during the program was very high and sustained over the full eight weeks. Over four terms, for example, only two days were missed by the children enrolled. The maximum number of days missed in any term’s program was 9 (between 5 children, one missing 3 days, two others 2 days each), with the next being 5 days missed (one child 3, the other 2 days). The remaining three programs in which children missed a day saw one day missed (twice) and two days missed (twice).

Of the children who missed days in the program, five missed *one* session only. Of those, one arrived late back in the community from school holidays; one was ill for one session; one child was sent to another community for a week by his mother, partially as a disciplinary measure; the fourth missed when her mother went to hospital while the fifth was not accounted for. Four children missed *two* sessions: one of these ran away from home for three weeks, after conflict with his father; another, fostered to an aunt, followed his birth mother who arrived briefly in the community for two weeks; a third was absent for no clear reason, although her father was ill and had ceased attending the program from mid term; the fourth was a withdrawn child, whose school attendance was also poor for reasons often given as illness-related. Two children missed *three* sessions: one child was a frequent non-attender at school and would often stay at home with his mother who was highly anxious and had threatened suicide; a second was also a frequent non-attender whose mother noted conflict between son and father at home, with the child staying at

another community during one of the missed sessions.

The absences of a small number of children, usually for one or two weeks of the program were thus related to some of the issues for which they had been referred: withdrawn, unengaged, some anxious, school non-attending children. For a similarly small number of other children, non-attendance was more likely to be related to specific family issues: anxiety about a parent, or family conflict directly or indirectly affecting the child, but in all cases of children who seemed to be withdrawn. There was in some cases a linkage between the days missed by children and days missed by parents: withdrawn and anxious children may temporarily react to withdrawal and anxiety by a parent.

In summary, almost all children were enthusiastic about participating in the program and in the group work in particular. The team established a “homework centre”, an hour of group work and play the evening before the program ran. This was intended to give facilitators additional time with the children, opportunities to observe and listen, etc. and to give the children additional time with each other as a group. Attendance in this voluntary group was also high, at 70-80% of children.

### *Parents*

Parents’ attendance is more variable over each term and tends to decline somewhat after the initial weeks. In addition to the withdrawals, however, there have been three occasions when a parent, having fully consented to join the program with their child has refused to attend a single day, and no substitute for the initially consenting parent was found. In none of these cases was consent for the child’s attendance withdrawn.

Of parents and caregivers attending the program, the primary attenders numbered 54, of whom 7 were male, all fathers, of whom 1 was a stepfather. Female adults included 32 mothers, 7 grandmothers (all but 1 were *maternal* grandmothers, one attending twice for different maternal grandchildren, one year apart), 5 stepmothers (mother’s sisters) and 3 aunts (father’s sisters)<sup>3</sup>. In 7 cases, a second adult attended for a child. Three husband-wife couples attended for most of the sessions, with the fathers missing 3, 1 and 0 days, the mothers missing 3, 2 and 1 days, respectively. On two occasions a grandmother attended occasionally with the mother, twice a sibling of the child filling in for the parent for one session. In the case of one child, in addition to her aunt, her mother (like the aunt, missing no days) and her father (missing five days), also attended. In one case, a mother attended with her son for five weeks, but sought to transfer the responsibility to the boy’s father, who attended for the last 3 weeks.

Of the 37 mothers and stepmothers, 18 lived with a spouse who was, with only 2 exceptions, the father of the referred child. The remaining 19 mothers lived alone as a result of death of spouse, separation or of never having cohabited with the child’s father.

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<sup>3</sup> In this work conventions consistent with Tiwi English will be observed, according to which *aunt* refers to a father’s sister only, while *uncle* refers to a mother’s brother only. A mother’s sister is referred to as “mother” or stepmother, while a father’s brother is referred to as “father” or stepfather. Where necessary, the phrase, *father’s brother (or mother’s sister)* is used to distinguish actual or consanguineal brothers (or sisters) from *classificatory* brothers (or sisters), that is, brothers (or sisters) by convention of extended kinship alone.

On 5 occasions a mother attended for a child although the child was living separately (usually with a grandparent, in one case with father's sisters).

As described, parental attendance is lower than child attendance, and reflects a more complex pattern of motives. Over eight terms, of a total of 408 possible program days, the proportion of days missed ranged from 15% to 45% of program days missed by attending parents. Typically, one or two parents in a program miss from 6 – 8 sessions, with the remainder missing none or one or two sessions. It appears likely that personal issues or circumstances, self-consciousness or anxieties about disclosure in a group, or other reactions to the demands of attendance account for most cases of parental failure to participate. However, while there is no direct evidence, it can not be ruled out entirely that some of those who miss most or all sessions may be influenced by group selection and group composition.

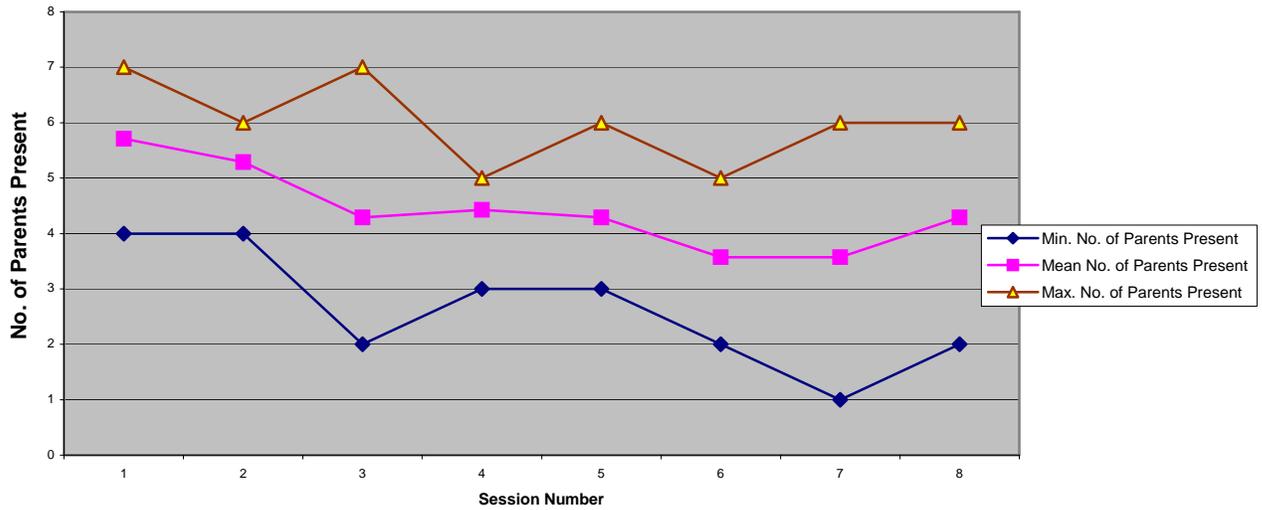
Of those who failed to attend for six or more sessions, three were single mothers in their late teens or early twenties, of whom one was a young step mother (mother's younger sister); one reportedly smoked marijuana heavily and was said to be affected at the time of the program; and the third, who attended for two sessions only, had not cared for her daughter since early childhood, and appeared ambivalent about resuming responsibility (now pressed on her due to changed family circumstances). Two others were married mothers: one case involved spousal conflict, heavy drinking and marijuana use; the other failed to attend, possibly due to spouse's resistance. Two fathers failed to attend, one after considerable disagreement with his parents, who insisted that the father, rather than they, attend; the other was a stepfather who withdrew at the beginning of what was to become a period of serious marital breakdown.

A number of parents/caregivers missed from three to five sessions, for a range of reasons. In three cases, there was overt dissension between a mother and a father as to who should attend for the child (in both cases boys); in two other cases a grandparent, in at least one more a foster-mother, showed reluctance to be singled out for responsibility to attend; in four other cases, a combination of personal circumstances and anxieties about disclosure appeared to be behind absences mid-term; issues related to pregnancy of a referred child's mother accounted for two withdrawals.

All the persons described gave assurances of willingness to participate, often as late as the day before the program, in some cases, reaffirming intent to participate after having missed one or two sessions, only to take flight or otherwise absent themselves the morning of the session. In no case was consent for the child's participation withdrawn. Despite the full explanations by the project team at commencement, some parents appeared to rationalize absence by suggesting that they thought that their participation was supposed to be occasional or at commencement only.

The following figure illustrates – amid considerable fluctuation from week to week overall - a tendency for mean parent attendance to decline after two to three weeks.

**Figure 2: Parental attendance**



Some of the factors underlying parental participation are discussed in more detail in Chapter 5.

**Program reach**

According to demographic data for June 2003 supplied by the Tiwi Health Board<sup>4</sup>, the total Tiwi population was 2659 persons.

**Table 2: Tiwi population by community**

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-89	Sum:
<b>Milikapiti</b>	59	65	55	57	52	41	55	50	45	47	31	17	27	<b>601</b>
<b>Nguiu</b>	154	147	129	139	156	160	150	153	102	101	85	46	77	<b>1,599</b>
<b>Pirlangimpi</b>	51	49	43	33	31	42	46	47	29	29	18	11	30	<b>459</b>
<b>Sum:</b>	<b>264</b>	<b>261</b>	<b>227</b>	<b>229</b>	<b>239</b>	<b>243</b>	<b>251</b>	<b>250</b>	<b>176</b>	<b>177</b>	<b>134</b>	<b>74</b>	<b>134</b>	<b>2,659</b>

Of these, 488 children were aged 5-14 years and roughly 370 were 5-12 year olds. The intake of the program at any time is aimed at 7-12 year olds, roughly 260 children. This means that in any year, around 12.5% of children within this eligible age group may be exposed to the program. Operating one program per term with between 7 and 8 participating children, over a four year period, up to 33% of 370 eligible 5-12 year olds (and their parents) will have been exposed to the program. This represents significant reach and potential impact for an effective school-based intervention.

With household/family groups averaging 6-7 members<sup>5</sup>, the program is in effect able to reach adults and children in families with a total membership of around 400 persons over two years (eight school terms). This is potentially significant in population terms. This

<sup>4</sup> Prepared for THB by NT DHCS Corporate Information Services Division.

<sup>5</sup> Eighty-one children participating in the validation study and stage one of the program lived in households with a mean size of 6.54 persons.

means that over a 4 year period, up to half of all Tiwi families and households with children may have been exposed to the program. With the additional follow-up, case management and counseling activities which could be achieved with better integration of the Ngari-P program at schools, the reach of a fully developed program of early intervention services is potentially wider still than even these numbers would suggest.

Most of the children seen in the program have siblings, who to greater or lesser degrees are affected by the participation of their brother or sister. Sibling relationships are invariably a point of discussion with parents, and a subject of the intervention. On a number of occasions, two or more children of a particular family have been referred to the program. In other words, the intervention invariably reaches well beyond the individual referred child, both at point of delivery, and serially, in the sense that more than one child from a family will participate over time. If one combines effects registered through parents and, by their actions, other family members, with direct effects on children within the program, the potential for a program of early intervention and family services to have impacts across a population cohort over time is substantial. Its effectiveness can clearly be augmented by collaborative work with other providers to provide multiple services to families and children.



### **3. Overview of Development and Evaluation**

#### **3.1 Culture and Early Intervention: Program development and adaptation**

The authors of a recent review of the sciences of child development (Shonkoff and Phillips 2000) enunciated as a core principle: “Culture influences every aspect of human development and is reflected in childrearing beliefs and practices designed to promote healthy adaptation.” In its recommendations, the review committee indicated that, given “the racial, ethnic, linguistic and cultural diversity of the early childhood population” it is crucial to ask whether “those who design, implement, and staff early childhood programs fully understand the meaning of ‘cultural competence’ in the delivery of health and human services”. Framed for the North American context, these principles are no less relevant in Australia, where there has been only limited, unsystematic attention to the distinctive challenges of developmentally focused prevention for indigenous people.

Internationally, there has been an accumulation of evidence suggesting that early intervention programs aimed at improving the academic and social-emotional competencies of children can have important immediate and long term benefits (McCain and Mustard 1999; Barnett 2000; Hertzman 2002; Weissberg, Kumpfer et al. 2003). The evidence strongly supports the value of school-based programs, including family focused interventions to enhance the social competencies of children and reduce preventable behavioural difficulties (Greenberg, Weissberg et al. 2003; Kumpfer and Alvarado 2003; Greenberg 2004). The momentum to support developmental prevention through nationally funded programs has produced escalating demands for more stringent evidence of effectiveness and for clarification of the principles underlying effective psycho-social programs (Nation, Crusto et al. 2003).

The development of national programs has produced increasing concern for the cultural appropriateness of interventions. There is a tension between the demand for “cultural competence” in development and delivery of programs in the sense implied above, and the fact that culture is at most a residual category in the explanatory frameworks of the key research disciplines. Research strategy and intervention both require systematic adaptation for specific contexts (Castro, Barerera et al. 2004); interventions may not be sustainable unless they are grounded in the context of local culture and local community institutions (Shonkoff and Phillips 2000). However, the research disciplines yielding evidence based on stringent methodological controls do not readily accommodate linguistic, social and cultural diversity. Many of the assumptions about parenting and child development in the field of developmental psychology prove to be ethnocentric in contexts described in this report.

The argument for adapting programs to respond to specific cultural contexts is often seen to run counter to the need to retain program “fidelity”. Fidelity refers to consistency, standardization of practice – often using program manuals with quality control measures to ensure adherence to protocol - in order both to ensure that outcomes demonstrated to be possible are not lost because the program has drifted away from key functions or has

suffered a loss of standards of delivery, and to meet the research requirement that treatment exposure can be held constant in order that factors influencing outcomes can be statistically measured and analysed. There are many reasons why program fidelity can be difficult to sustain: for example, there may be political pressures to adapt programs in ways not supported by any evidence of effect (Elliott and Mihalic 2004). There may be bureaucratic or practitioner resistance to variation of existing process or practice. Training may not be sufficient to ensure that all practitioners in all settings can meet desired standards of delivery. Perhaps most importantly, intervention work in any setting generates powerful pressures and, sometimes, anxieties. These can lead implementers to adapt, and in effect to abandon key disciplines within a project in a certain setting over time. Any “reinvention” of a program needs to retain the core elements of structure and function and of patterns of engagement between participants – irrespective of the degree of reformulation it may need to be acceptable or workable in a given socio-cultural context (Bauman, Stein et al. 1991; Baumann, Stein et al. 1991; Elliott and Mihalic 2004). This presupposes a theoretically grounded and, ideally, evidence-backed understanding of the key mechanisms underpinning the effectiveness of the program in question.

In Australia, with reference to its indigenous peoples, the real challenges of culture in relation to the development of effective programs have been submerged under the assumption that Aboriginal community participation and involvement in the selection and delivery of programs are sufficient, by themselves, to produce appropriate programs capable of delivering outcomes. There are currently signs of interest among national and some state governments in developing early intervention programs aligned more firmly with the evidence base. However, there has been little support for research and development capable of grounding these intervention models in specific social and cultural settings, either in terms of their underlying causal assumptions or in terms of their adaptation to the specific contexts of family and community life. The concept of “community” can be said to have overshadowed the conceptualization of family relationships and styles of parenting shaping child development to the detriment of the development and testing of effective intervention strategies. From our point of view, “community” is most relevant to the process of contextualization of a structured intervention in a given set of socio-cultural circumstances: this entails a process of engagement of persons and families, an engagement with cultures, attitudes and institutions most relevant to the change mechanisms (Pawson and Tilley 2000) presupposed by the program, and an engagement with local agencies whose resources may be important sources of infrastructure and ongoing support.

This project has aimed to lay some foundations for a more rigorous research-driven approach to family support and early intervention at primary school age; it makes a first attempt to investigate possibilities of measurement and evaluation; it explores the basis for group work attuned to distinctive patterns of development, attitudes to parenting and functioning of Aboriginal family and kinship systems; it considers the future conditions for integration of an intervention program within the framework of community-based services in the health, community services and education sectors.

### 3.2 Evaluation Project Design

The original objectives of the *Tiwi Life Promotion Evaluation Project* highlighted a number of challenges, the first of which would be to assess whether the program would at all be viable and sustainable in the Tiwi social and cultural context:

1. The program in general terms presupposes patterns of parental authority and responsibility, as well as a degree of literacy and capacity to speak about problem behaviours in specific terms (both generally, and with teachers and non-Tiwi others in particular) which may not exist among Tiwi. The capacity to secure parental participation at all would be a key question.
2. The pre-existing models of program functioning *and* evaluation emphasized parent-child dyad and parental or spousal dyads as the primary axes of psycho-social functionality, consistent with general Australian nuclear family structures; the underlying assumptions and the associated measures would need substantial redevelopment for Tiwi intergenerational relationships and group processes.
3. Problems defined from professional perspectives may not be similarly perceived by Tiwi *as problems* and may not be amenable to expected or desired patterns of communication; a causal link between family conflict and child behavioural "disorder" would be foreign to the thinking of many Tiwi. In short a *problem language* would need to be developed which does not simply borrow professional terms or presume ideas of causation out of context<sup>6</sup>.
4. The 10-week curriculum would require revision: the cognitive content of the program curriculum and corresponding assumptions about child development may not be appropriate for Tiwi children.
5. The revised program theory and methodology would need to be taken up by a team to varying degrees
  - a) unfamiliar with the Tiwi cultural context and idioms of communication, interaction and patterns of problem-recognition, and
  - b) lacking professional experience with group work, therapy, learning and problem-solving, record-keeping and evaluation.
6. The existing internal evaluation used a battery of formal questionnaires which would
  - a) not be within the capability of the participating population unassisted
  - b) not necessarily provide reliable or valid measures of intended variables in this cultural context
  - c) not capture important gains of the project.
7. The possibility of modification of existing instruments such as the Achenbach child behaviour checklist (Achenbach and Edelbrock 1983) and/or other measures should be investigated.
8. It is likely that evaluation of effects among the participant children would be a major challenge: the age of children and characteristic communication patterns are likely to render self-report measures (Achenbach and Edelbrock 1987) unworkable.
9. There would need to be substantial Tiwi participation in the redevelopment of the program and evaluation methodology.

The adaptation of *Exploring Together* involved the establishment of a model of assessment and group and family casework from the ground up. Given the innovative,

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<sup>6</sup> It must be noted that these can also be contentious issues in the operation of *Exploring Together* in its original context; family members often strongly resist any imputation that their conduct has any bearing on a child's symptomatic behaviours.

developmental nature of the project, the evaluation would not only participate in the development of a workable model of intervention, but would also seek to understand the contextual determinants of implementation success and difficulty: these might include determinants of failure to complete the courses, of parental participation and non-participation in individual cases and factors within school organization affecting both teachers and children. These attempts to understand context, implementation and sustainability would necessarily accompany any attempt to formally measure outcomes using adapted psychometric instruments.

### **Aims**

The chief aims of the project of program development and evaluation are as follows:

1. To develop and evaluate an intervention grounded in indigenous social, kinship and family patterns, with appropriate materials, content, therapeutic methods and training.
2. To investigate the program's ability to achieve high levels of participation & response by Tiwi parents and children.
3. To investigate gains for individuals through participation in the programs based on repeated measures, both to assess overall program outcomes and to test hypotheses concerning specific treatment effects in the Tiwi context.
4. To investigate whether any such gains for individuals and families might prospectively contribute to the solution of identified problems at a school or community level.
5. To develop concepts and indicators and specific instruments and methods of analysis for the *internal* evaluation of the indigenous intervention program, to replace existing instruments.
6. To investigate constraints on effectiveness or sustainability of the program.

### **Project Development Timelines**

The funded program commenced in March-April 2001, with the recruitment of a program manager with skills in youth work and related interventions. He set about establishing resources and locations for delivery of the program and initial recruitment of Tiwi members of the project team. The research program received funding for the *Cooperative Research Centre for Aboriginal and Tropical Health* (CRCATH) to commence in the middle of 2001. Arrangements were made with the principals of *Murrupurtiyanuwu Catholic School*, (MCS, primary) and *St Xavier Community Education Centre* (post-primary) to locate the program in rooms at St Xavier and for teachers to begin making referrals, after information about the program had been provided to them. A team consisting of four Tiwi members were recruited to work as group facilitators by mid 2001. Arrangements were made to fly a member of the original *Exploring Together* development team (Dr Carol Woolcock) to the Tiwi Islands to conduct initial training of the team over two days in June.

Although the key decisions had not been made concerning the development of the internal evaluation framework, it was decided to commence delivery of the program in terms 3 & 4 of 2001, in order to assess the development requirements of the program itself and to resolve basic questions about parents' participation and processes needed to sustain the program over ten weeks.

The evaluation framework is described below. In essence, a number of scales and

instruments were considered to be impracticable and/or of questionable validity in the indigenous context and were replaced by a less exhaustive number of instruments whose development, testing and modification are reported here.

The primary focus in 2001 was to develop the capacity to deliver the program itself and to make basic decisions about process and method of delivery, following which the establishment of the evaluation framework could occur. Not least important was the need to develop the ability of the delivery team to understand the concepts and to develop the capacity to interact with parents and children in the program. As a result of these decisions and constraints, the first pilot in Term 3, 2001 was conducted with qualitative methods of evaluation only.

By the commencement of term 4, 2001, arrangements had been made to examine the possibility of incorporating a PHD research project in clinical psychology with the task of developing psychometric evaluation instruments. A prospective candidate was recruited as a research assistant for the remainder of 2001 with a view to commencing the PHD project proper in 2002. Term 4 was delivered using Conners Parent and Teacher Rating Scale (Conners 1997) as a pre- and post-program measure, along with semi-structured interview.

The program was not delivered in term 1, 2002, so that the combined teams could concentrate on consolidation of method of delivery, revision of content and method and redevelopment of appropriate psychometric measures. The process of adaptation to create a composite instrument is described below. However, at this point the constraints on development of the project became obvious: given that there only remained sufficient funding for delivery over three further terms, it was likely that there would be insufficient time or numbers of participants in the program to render a PhD research project viable. The stability of delivery of the program and the need for ongoing development of content remained concerns. It was clear that without additional funding to run the program for at least a further 12 months, the PhD research project, if not a rigorous evaluation of program outcomes more generally, would not be achievable. The evaluation team leader and the project team leader set about seeking further funding for an extension of the project. This was successful in late 2002, when funding was secured from *beyondblue inc.* to extend delivery of the program, and from the NT Department of Health and Community Services to augment the evaluation team. By this time, however, the PhD candidate was no longer available and the PhD research project had to be abandoned. The head of the discipline of Psychology at NTU, who had commenced as academic supervisor of the PhD candidate, attempted to cover the gap throughout the remainder of 2002, by providing advice on the development and use of psychometric instruments. However, this input was un-funded, and could not be satisfactorily maintained from late 2002 into 2003. With the DHCS funding, a psychologist (Reima Pryor) was recruited to the evaluation team in April/May 2003. A consultant statistician (Bill Tyler) joined the project from mid 2003 to commence data analysis.

The timelines for delivery of the program and for administration of variants of the evaluation instruments are summarized in tables 3 and 4. In general, it must be

understood that the Ngaripirliga’ajirri (Exploring Together) project was not designed and executed according to the disciplines of a research program from the outset. It was set up and implemented in the first instance as a community program by a health authority with no prior experience in delivery of such an intervention and without access to the kinds of expertise which characterized its original development. The evaluation was initially conceived as an external evaluation examining the Health Board’s delivery of the program in the context of a range of initiatives. It rapidly became clear that the program could not be delivered by the Tiwi Health Board without significantly increased involvement of the evaluation research team. The research project had to become a research and development partnership rather than an external arm’s length evaluation. However, as a consequence, neither element of the project as a whole – development and implementation, and research and evaluation - was adequately resourced, at least in terms of continuous availability of specialist expertise when required. As a result, some key decisions about research methodology (particularly relating to the psychometric instruments) were not made early enough to take advantage of all opportunities presented by what became a robust, consistently delivered program with a very strong grounding in its context of delivery.

Against these considerations, the research outcomes of the project are very strong indeed, particularly when one considers that the development of the program as a model for school-based early intervention and therapy in a remote indigenous context is the chief outcome from which the other research outcomes (including the trial of psychometric measures for this intervention) follow.

**Table 3: Project Timelines**

<b>Terms</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
<b>1</b>	Recruitment and establish resources and facilities	Consolidation of materials, training. Adaptation of Eyberg.	Commence program at Pirlangimpi; incomplete	Validation Study Test
<b>2</b>	Commencement of preliminary activity; consultation with evaluation team	Program at Nguiu	Program at Nguiu Statistical analysis of psychometric data and revision of items	Validation Study Retest  Pilot Preschool version of ET
<b>3</b>	Program at Nguiu without psychometric evaluation	Program at Milikapiti	Program at Nguiu	
<b>4</b>	Program at Nguiu; Pilot instruments	Program at Nguiu	Program at Milikapiti	

### **Evaluation Methods**

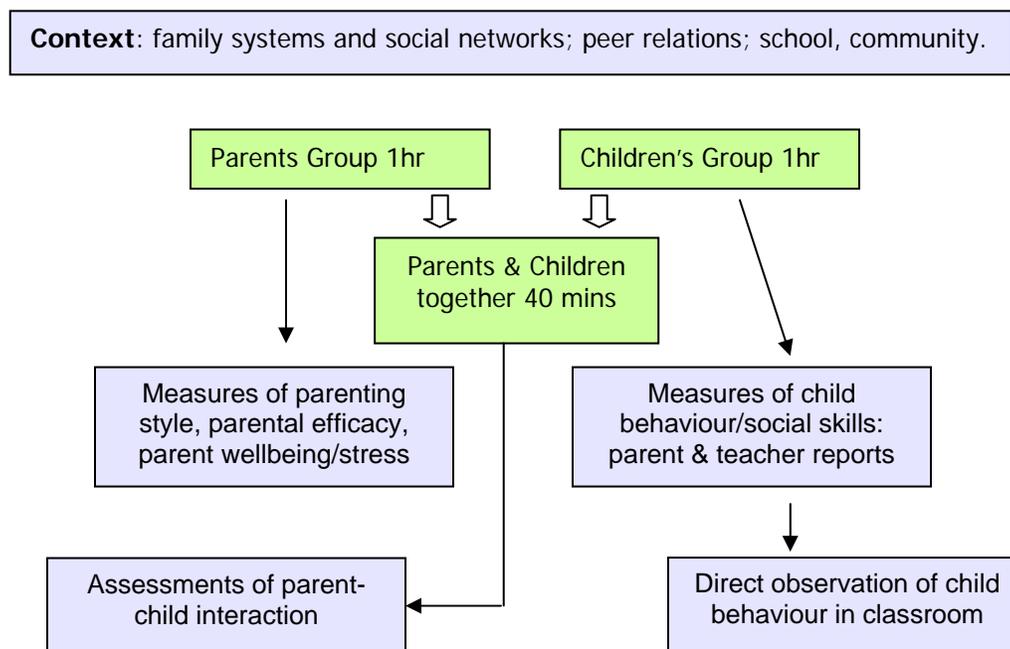
The chief methods of the research project included continuous participant observation; case study analysis based on leadership of groups, case-conferencing and other processes; structured and semi-structured interviews; formal administration of psychometric instruments pre- and post-treatment and at follow-up, and assembly of other relevant information from official records or from other documentary sources. The evaluation team has participated in all phases of development of the intervention program, has co-facilitated group sessions – taking lead responsibility for facilitation of the parents’ group

- and in case conferences jointly with members of the Tiwi Health Board’s Project Team throughout. The development of case study analysis is the most important source of information for the detailed interpretation of parent and child responses to the program.

**Measurement of Behaviour Change in Ngaripirliga’ajirri**

As is described in more detail below, and as represented in Figure 3 below, the evaluation focuses on a number of domains consistent with the program logic, specifically, its key processes: these are interactions and learning within the children’s group, the parents’ group, and the combined group. The approach thus entails both qualitative case analysis to explore patterns of response to group work and to develop analyses of links between family processes, child behaviour and reported or observed change, and measurement of behaviour change through a repeated measures strategy.

**Figure 3. Program Logic: Treatment, Measurement, Context**



The change hypotheses explored therefore propose links between observed behaviour of each child and, firstly, antecedents in development and upbringing; secondly, stressors in present family relationships and thirdly, parenting style. The relationships between stressors and child’s behaviour may in turn be mediated by parental wellbeing, anxiety and depression.

Changes induced by participation in the program may work either through parent’s wellbeing and parenting (including its effect on household arrangements and stressors) to affect child behaviour or through children’s behaviour to parents’ wellbeing and its effects by means of improvements in parent and children’s capacity to relate. Either of these pathways in turn may affect outcomes in the classroom, as observed by teachers. The evaluators have not undertaken to measure children’s behaviour in the classroom

independently of the teacher's reports using the main behaviour rating scale, and to this point no attempt has been made to measure teachers' experience of stress as a mediating variable. Parent-child interaction was not directly measured, but rather assessed qualitatively by group leaders by participant observation during sessions.

To implement this strategy, the evaluation gathered data through a number of standardized instruments:

1. A parents' interview form which asks parents questions about demography, child's developmental history, family and household composition and exposure to life stress events, including alcohol and marijuana abuse; suicide threats, attempts and completed suicides; domestic violence; diagnosed mental illnesses; loss of close family members; losses due to separation, breakup of parents' relationship, fostering or adoption of child, etc.
2. An instrument which examines parental wellbeing and parenting style, based loosely on existing models. This was administered for a limited number of cases. (Outcomes reported in an appendix in the Data Archive.)
3. Behaviour rating forms completed by teachers, parents and a self-report version for children.

As is described in detail in the appendices within the Data Archive, the behaviour ratings, measures of change in children's behaviour, were developed after trialling existing instruments. A version of these questionnaire for parents and teachers was also developed for administration to children by interview. These questionnaires were revised and piloted over three terms from 2001 to 2002. It was decided to pursue the question of the validity and reliability of these three instruments, given that the validity of accompanying measures is a key component of the program evaluation. The instruments were revised on two further occasions and a version produced for validation purposes only after administration to a random, non-referred sample during the last stages of the program.

#### **Limitations of the Present Study**

A number of limitations of the study have been outlined: these relate to the manner in which it was established, the short term funding of the program, and the inability of the teams to align the project design and evaluation research design simultaneously at commencement. The evaluation was not conducted with stringent controls: for the Original Scales, a waiting list condition existed between referral and pre-trial assessment. The results of this comparison are reported below. Later in the project, the full assessment at referral (and thus the waiting list condition) was abandoned, mainly in order to streamline the process and to reduce demands on teachers. With these difficulties and the small sample sizes of some facets of the analysis, there is therefore only a limited capacity to explore the specific outcomes of treatment and to disentangle these from the total effect of mobilization of participation and support among families and in the community, as some of the analysis will show.

The evaluation of any intervention relies on consistency of delivery over time, in order to render possible attribution of causality to the effects of the program using aggregate

measures. This entails standardization of approach and training to enhance consistency of delivery over time and circumstance. The original Exploring Together manual formed the basis of preparation for delivery of Ngaripirliga'ajirri throughout for both parents' and children's groups. However, the program was also necessarily adapted in matters of detail and content over time, according to the team's assessment of the efficacy of approaches to certain issues and themes for children and parents respectively. The team acquired greater experience over time. Thus, in the latter period of the program's development a revised manual was produced – used in conjunction with the original manual - which formed the basis of weekly preparation, albeit in conjunction with the original manual. While this developmental process led to some changes in the manner of delivery over time, there has been a fairly high degree of consistency in delivery of the revised program throughout, and a steady consolidation of the approach. Nevertheless, the developmental process does confound some of the requirements of consistency of delivery required of evaluation trials.

Ngaripirliga'ajirri is a targeted program, in that participants are invited to join after referral by teachers or others, following concern about a child's behaviour. The referral process is not carried out using clinical or formal screening measures, firstly as a result of the lack of validation of appropriate tools, secondly, due to a reluctance on the team's part to overburden teachers responsible for most referrals with unduly long procedures and, thirdly, because the program was considered to be beneficial for a wide number of children and parents, including many not assessed as having a specific difficulty or problem. The referral process therefore constituted a possible source of variation in the program's intake<sup>7</sup>.

The limitations outlined point to the need for further clarification of the requirements for rigorous, considered research to support the development of appropriate programs for indigenous communities of the Northern Territory.

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<sup>7</sup> It may further be considered whether the formal and informal selection processes for Ngaripirliga'ajirri are of themselves significant influences on outcomes. Do they select for certain groups in the community? What in turn is their relationship to attendance and outcomes to the extent that these may be shaped by parental attendance? Definitive answers to these questions fall outside the current scope of the evaluation.



## 4. Ngaripirliga'ajirri: Program process

### 4.1 Exploring Together with Tiwi Parents and Children

#### **The Original Intervention**

Exploring Together is an eight to ten week multi-group program which aims to treat children aged from 7 to 12 years referred with conduct disorders or observed behavioural difficulty manifest in school or other settings (Littlefield, Trinder et al. 2000). It aims to reduce overt problem behaviours, to reduce anxiety and depression, to improve parent-child communication and to reinforce positive parenting strategies. It focuses on anger management and social skills training for children through work in a peer group setting. Parents are involved separately in a group where the focus is on child behaviour management, positive parenting strategies and collaborative work to respond to difficulty in families identified by parents. Parents also participate in group work together with the children: the involvement of parents is considered to be more likely to lead to sustainable behaviour change on the part of the children. According to the authors, "Early intervention that treats parental and family difficulties in addition to the children's emotional and behavioural problems is ... an important and necessary part of a successful prevention program."(Littlefield, Trinder et al. 2000).

Exploring Together has been evaluated both in Victoria and nationwide. Both evaluations showed statistically significant reductions in depression and anxiety, aggression and delinquent behaviour and attention difficulties, with improvements in social skills and self concept (Littlefield, Burke et al. 2000; Hemphill and Littlefield 2001). Improvements in some parenting skills and in parent-child interaction were also detected.

#### **Key Features.**

Exploring Together combines training in social skills and problem solving for children and parenting management training for parents in a single intervention. In Australia and internationally, such programs, both separately and in combination, have been found to be successful in reducing targeted problems (Kazdin 1988; Dumas 1989; Kazdin 1993; Barlow and Stewart-Brown 2000). However, the program is also based on group-therapeutic principles, in which the cognitive-behavioural focus on skills is a vehicle for a group process. The therapeutic group process was considered by the authors to be "the essential ingredient in changing behaviour"(Littlefield, Trinder et al. 2000).

Children are referred to the program by staff in schools or other agencies. On the Tiwi Islands, referrals are sought from teachers in advance of each term in which the program is to run. Based on referral information, a group of from 5 to 7 referred children is selected to join the program. Their parents are approached and the program process and confidentiality provisions are explained. After parental consent is obtained, parents are interviewed on the child's development and on current household arrangements and life stressors. Further questionnaires which rate child behaviour are administered to parents and teachers at program commencement. The children meet as a group with two

facilitators for one hour per week. Simultaneously, a group consisting of one parent of each child meets for one hour. At the end of the hour, facilitators, parents and children meet together for up to one hour in a combined group. The parents' and children's groups follow a broadly matched program comprising social skills training for the children and parent management training for parents, drawing on themes relating to management of emotions, recognition of antecedents and consequences of behaviour, development of behaviour management plans, exploration of current family issues and positive parenting strategies. Sources of the childrens' materials include the program 'Stop, Think, Do' (Peterson and Gannoni 2000), and other familiar social skills training materials. In the combined groups, direct dialogue and role play between each parent and his or her child is encouraged.

### **Exploring Together in the Tiwi Context**

The Tiwi program has not departed from the original model for Exploring Together in any of the above-mentioned essential elements. In particular, the program's multi-group structure and the emphasis on group process as the basis for the program's therapeutic orientation have not been altered. However, a number of adaptations or specific developments to content have been necessary. The evaluation is not able to assess the contribution of specific adaptations to program outcomes, given that the trial evaluation was not set up in such a way as to allow comparison of treatment components.

These adaptations include:

1. redevelopment of the evaluation apparatus which accompanied the program
2. adaptation of elements of the group process including selection and rules to take into account Tiwi community preferences, and
3. redevelopment of program content to take into account Tiwi family processes, relationships, kinship and cultural norms.

In the Tiwi Islands, the three groups were facilitated by both Tiwi and non-Tiwi group leaders. The common language of delivery of the program was English. However, much discussion was conducted between parents and Tiwi group leaders in the Tiwi language, with non-Tiwi facilitators trying to keep up as best they could. There was at best limited usefulness in setting homework tasks (emphasized in Exploring Together's original format), and there were some changes relating to activity in the combined group. Although the most important changes were well established and supported by appropriate materials, the development and refinement of the program was ongoing.

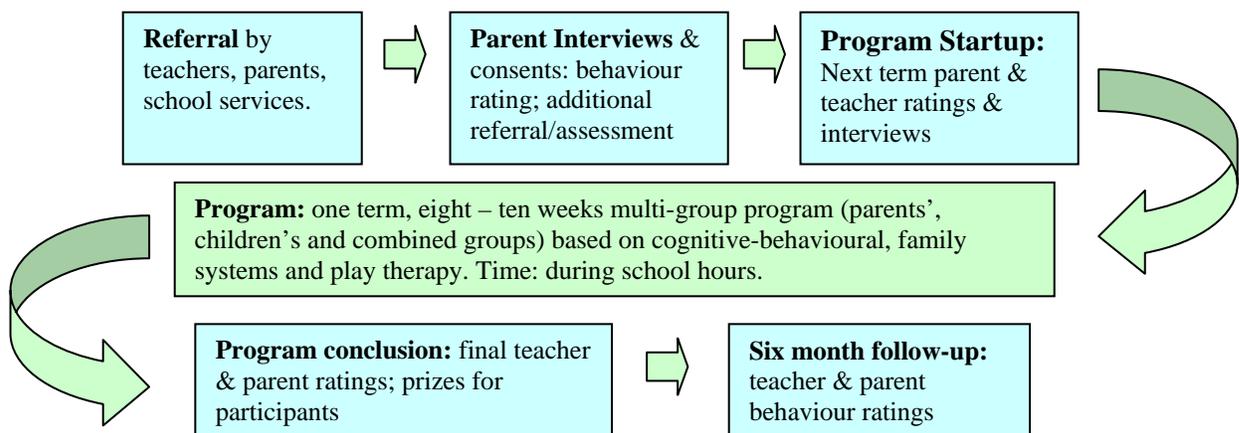
Questionnaires may be unfamiliar to many remote indigenous people. Decontextualized questioning may be perceived by some as an ambiguous and uncomfortable demand, and comprehension difficulties were not uncommon until the team gained experience with delivery of the questions in local English. However, the interviews and behaviour ratings were an important beginning of dialogue between parents, children and the program team, and conveyed a lot of information to parents about the program. They made it much easier to begin to directly discuss observed behaviour and responses at the commencement of the program.

At each school, the program’s process and the principles of referral were explained to teachers at a first meeting, and delivery was accompanied by periodic contact with teaching staff including the Principals, both informally and at staff meetings. Referral of children (by teachers and parents) occurred in the term preceding commencement of a new program and entailed administration of brief referral questionnaires, detailed explanation of program objectives to parents, conduct of parent interviews and provision of written consent forms by parents. Commencement was usually in week two of the school term.

The conduct of the program was for 2 hours per week over a school term. It was accompanied by administration of pre- and post-treatment behaviour rating questionnaires for parents, teachers and children and parental efficacy questionnaires; post-completion interviews with parents and teachers, and six month follow-up ratings and interviews. The program was shortened to eight weeks of delivery with the ninth week used for administration of questionnaires, barbeque and prizes. This was to accommodate the length of the school terms which see most non-Tiwi staff fly out for holidays on the final day of term, and many Tiwi going bush or to Darwin at the commencement of their breaks. It was not possible to conduct any program business during the school holidays.

Each weekly session was followed by a debriefing meeting with all group facilitators present. They compiled case notes on each of the groups and each individual parent and child participant. These notes were compiled at the end of each term. Case conferences were conducted by the team at least twice during each program, to develop fuller understanding of cases, and to propose specific strategies as appropriate for each parent and child. The process is outlined in figure 4.

**Figure 4: Program Process**



Considerable informal work was undertaken to establish the willingness of parents to participate and to clarify aspects of the group selection process. For example, as will be discussed in greater detail below, for many children referred, it was often not

immediately apparent which adult would be prepared to attend the program for the child, and then, whether that adult was the most likely or most appropriate person to *actually* attend. On a number of occasions, the team had to undertake numerous discussions with parents and other kin before these matters were resolved.

At the time of these discussions with parents about attendance, the team approached employers to secure time off with pay for parents who wished to attend the program. This often needed further follow-up during the term, because staff might be put under pressure to stay at work by customers, visitors or other employees even though permission had been granted. The team leaders had to be prepared to intervene to assist some parents in extricating themselves from work almost on a weekly basis.

Other elements of the process included prizes and incentives for participation. These included barbeque lunches; raffling a meat tray two to three times during each term, and final prizes for children, which included two or three items, usually sports goods, such as a football or a basketball and socks or a Guernsey, or music compact discs, with a player, or other items to a total value of approximately \$25 per child. A prize has from time to time included the raffle of a return airfare for one parent and child to Darwin, donated by the regional airline which services the Tiwi Islands. While prizes were not a part of the original Exploring Together program, prizes have been employed in other family intervention programs such as “Families and Schools Together, (FAST)”, (Coote 2000). These measures were felt to be necessary in order to maintain the positive, supportive spirit which characterized Ngaripirliga’ajirri, and to reduce any risk of stigmatization of individuals in a targeted program.

## **4.2 Exploring Together Processes in the Tiwi Context**

### **Referral and Group Selection**

Referrals were sought from teachers 5-8 weeks before the program commenced. As the program became established parents began to refer their children or step-children independently of school referral. From 2002, around 10% or one to two children per program were referred by parents or grandparents. Referrals from either source were treated in the same way. Groups were selected with a balance in age, gender and withdrawn or extroverted children. Tiwi leaders alerted the team to relationship problems between prospective participants. Issues which might affect attendance were also taken into account.

Other referral issues were considered at this stage: for example, a medical problem, a physical disability or possible developmental problems might require further investigation or treatment before suitability for participation could be properly assessed. The team encouraged and assisted parents to seek medical or allied health assessment for the child in such cases. If services could not be accessed in the communities, a visit to Darwin or another centre might have been required.

### ***Groups and Community Relationships.***

Almost all people attending the program had some degree of ongoing relationship, or, at a

minimum, acquaintance with each other outside the program. This was unlike most urban settings where Exploring Together had been run. These relationships were taken into account to some extent when selecting groups, to ensure that there were no major incompatibilities. Perhaps more importantly, understandings of kinship and relatedness between participants and within their family networks were central to the ordinary interaction and discussion of family issues in the groups.

#### *Families and Children.*

Referral of a number of children in one family sometimes occurred at the same time – that is, brothers and sisters, sometimes a little uncle and nephew from the one household or group of households. The program's basic rule was that an adult could not attend for more than one child at a time. If needed, a decision about which child should attend was made by the team after discussion with parents, and, sometimes, the teachers responsible for the referral. Otherwise, some degree of family relatedness was usually positive for the group, provided each child had a committed caregiver willing to attend.

#### *Peer Groups.*

Some groups selected had a number of children closely associated with each other, sometimes linked by more or less close kinship and/or genealogical connections, sometimes by friendship as peers. While this was a good basis for group work, it could also set up in-groups within groups, if lines of tension from children's prior relationships were carried into the group. On some occasions, these issues were considered at group selection as factors for inclusion or exclusion of individuals.

For example, a group selected in 2002 contained a small cross-section of schoolyard peer networks, with two pairs of boys quite overtly antagonistic towards each other (one boy clearly identifying fear of bullying by another at referral). The decision was made at selection to work through these issues in the group, rather than to use it as a basis for exclusion of one of the boys. This was at least partly successful, although the group had to cope with many incidents. Exclusion should be considered only if there is the potential for one or more children's serious difficulties to amplify problems of others in the group at the expense of effective group work. However, this has proven difficult to detect at the beginning and it is not clear that formal assessment measures can greatly assist early recognition of such problems.

#### *Avoidance Relationships.*

Avoidance relationships (norms of avoidance governing relations between actual and classificatory kin) needed to be taken into account at selection, particularly in relation to adult attendance: for example, male and female siblings (whether actual or classificatory siblings), or aunts and nephews (fathers' sisters, mothers-in-law and brothers' sons, sons-in-law) traditionally avoid direct contact and communication. This may render participation of some individuals in the parents' group difficult or even impossible. The indigenous team members advised on these matters.

Such avoidances were not necessarily absolute grounds for exclusion. Groups can usually be set up so that they contain persons of various relationships, so that no one individual is excluded from direct communication with more than one or two others. For example, it is

almost always the case that any person with whom one cannot interact directly can be approached and spoken to directly by one's spouse. Avoidance can therefore be one reason why spouses prefer to attend together.

Finally, it was evident that male and female adults participating in a mixed group needed a balance of male and female facilitators in the team. It is rare that a father will attend the program as the only male; at least two males are needed to reduce anxieties about participation with females.

*Family Issues and Guidelines for Inclusion.*

For Exploring Together, the following persons were excluded from participation (Littlefield, Trinder et al. 2000):

1. Parents unable to find childcare for preschoolers
2. Parents pregnant and due during program
3. Parents unable cognitively to function: unable to handle discussion, disclosure & confrontation
4. Parents at greater risk of depression, suicide or psychosis in context of group work

Regarding 1: Generally speaking, the Tiwi program required negotiation around issues such as childcare; parents may not use or have access to the childcare centre, or find difficulty having small children looked after by relatives from session to session. The team actively reminded and assisted them to find a solution, but on a number of occasions has had to tolerate the presence of a small child during group work. This was always to some extent disruptive and was avoided where possible.

Regarding 2: The team adopted the general principle that advanced pregnancy of the attending parent was grounds for exclusion or deferral of participation; in addition to possible withdrawal of the parent from the program, pregnancy-related issues can prevent appropriate focus on program themes, reducing potential gain for the child referred. There were a small number of exceptions to this rule.

Regarding 3: A formal protocol for assessment of risk of parental depression, suicide or psychosis was not adopted. With assistance of Tiwi team members, matters such as parental ability to cognitively or emotionally cope with group work, or risk associated with parental mental illness were considered during group selection.

Regarding 4: Other grounds for exclusion included preliminary assessment of disability or other problems in the referred child. Cases were assessed in consultation with parents, and referred for further specialist assessment (severe speech or hearing pathology, or evidence of delayed development)<sup>8</sup>. Further assessments were requested after completion of the program if grounds arose during the program.

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<sup>8</sup> Case references: 159, 96. A referred child's parents felt that speech pathology lay behind his aggression. There was also considerable tension between parents about how to judge his behaviour. In view of both factors, it was decided to secure referral for specialist assessment. The boy's father was greatly relieved at this, and accompanied his son to town for the assessment. There has been no re-referral to the program.

Families undergoing current or recent very serious difficulties could be excluded from Exploring Together. These difficulties might include:

1. Relationship or family breakdown
2. Death of family members
3. Incest, family violence
4. Drug and alcohol abuse
5. Imminent incarceration of one spouse

Similarly, current or recent very serious crises constituted general grounds for exclusion of families from Ngaripirliga'ajirri. However, many Tiwi families may experience significant stress due to violence, suicide, alcohol or other substance use, so that the simple presence of any of these could not usefully serve as grounds for exclusion. There were serious difficulties, such as suicide attempts in the child's family group, current mental illness or imprisonment of a father, some degree of marital or family violence, or evidence of overt drug or alcohol use by a parent. The recency and severity of these problems was assessed by the team before making a judgment; however, no child and parent willing to attend were excluded solely on grounds of the presence of stress, conflict or substance misuse in their family.

Important considerations were found to relate to the stability of a single parent's relationships, and the degree to which supportive or foster-care arrangements for a child would provide a suitable basis for care-giver participation if the parent was unable to attend. For example, some young mothers (and some young fathers) may be in unstable relations with a partner, may be heavy substance users, and may be unlikely to attend reliably, if at all. Foster-relationships are unlikely to be settled in such situations, because grandparents may be resisting the parent's attempt to shed or limit responsibility for his or her child. While it was difficult to gain clarity about these issues at the beginning, it proved to be essential that the team try to identify and work through these issues with the parents and, as necessary, other family members at the time of interview. Even with considerable consultation, a parent or foster-parent might give repeated enthusiastic assurances about participation, but very quickly withdraw or fail to attend the program at all.

For Ngaripirliga'ajirri, judgment needed to be exercised about inclusion or exclusion taking into account all known factors: the capacity of the parent to participate without overt aggression, a degree of 'fit' with the selected group, acceptance of the program by non-participating spouse, reasonable prospects for adult attendance on the basis of genuine interest in the child were factors favoring *inclusion*. Children with a severely disorganized family and with no adult available and willing to take a serious interest in them were not likely to be accommodated by this program. In terms of appropriate community responses, it is desirable that alternatives be developed for children who "fall through the net".

### **4.3 Adaptation of Content and Approach: Brief outline**

The adaptation of the content of the program was at some levels unproblematic and flowed fairly straightforwardly as the team's ability to communicate freely with parents and children grew. A range of additional materials were adopted for the program based on their thematic relevance and workability with Tiwi children and parents, and there was some modification of strategies for interaction around behaviour management.

#### **Homework and Evening Play Group: Literacy and program development**

Exploring Together presupposes a literate clientele, with organization of household life such that space can be found for parents and children to do written homework, or to develop written plans to help families adhere to decisions made during group sessions. There is no doubt considerable variability in the way this occurs from participant to participant in "mainstream" settings. However, on the Tiwi Islands, written homework was largely abandoned, both because everyday functional literacy levels are not sufficient to ensure a useful level of completion of tasks, and because homework sheets were lost and could rarely be found when parents were picked up to attend the program. The team did develop some homework sheets to be taken home during early weeks of the program; these were more like reminders of the themes of the first groups, and fresh sheets would often be completed in combined group work. It was found that some printed information dealing with specific issues would have been helpful for the group of parents or for individual parents: for example, information about children's grieving after suicide or other deaths in the family. Responses to these needs were handled in a somewhat ad hoc manner and could usefully be more fully developed.

In addition to the lack of completed homework, there was little development of written work on behaviour management plans in groups and for use at home. On some occasions, when checklists, for example, were developed for a child, it was apparent that initial interest in the idea was not carried into action at home, so that the checklists were never filled out or consistently used. The nature of the large households in which most people live and the competition for attention within them meant that these homework tasks were never more than a token exercise. They consumed considerable group time for little gain and their use was discontinued. Their use would be reconsidered for a more literate population.

Given that the lack of homework represented a gap, it was thought that a "homework group" might be a useful alternative. This was established as a group for children who would be picked up after school and brought to the rooms for the purposes of free play for an hour to eighty minutes, after which the children were dropped home. Some parents would attend on a voluntary basis and would join in the play – no parents attended for more than two or three sessions. The focus was on drawing, games and story-telling. The objective of the group was to provide additional time for the group leaders to learn about things which had happened during the week, to observe children's talk and play among themselves and to practice play techniques with the children. In this supervised free-play group, a considerably greater depth of understanding of the children's preoccupations and concerns was achieved, assisting formulation of strategies for the more structured group work of the session during the following day.

### **Themes in the Children's Group**

The verbal expression of feelings by children is limited, for some children much more so than others. The facilitators must not limit their approach to the exploration of feelings and the management of emotions verbally, and must consider action, gestures and expressions and all the ways children express feelings, drawing the group's attention to these in the course of group work over sessions. As in *Exploring Together*, the team first elicits material on feelings by having the children create collages, cutting out faces from magazines and other print material and using them to illustrate strong emotions. Overall, it is important to have the children able to express emotions through activity and to recognize and respond to such expressions. In later sessions, this is achieved through the development of action scenarios in role-plays. Then stories told by the children themselves in the course of their play can be discussed by the children and facilitators in the group work.

The use of the framework, "Stop, Think & Do", and "Cool, Weak, Aggro" (Peterson and Gannoni 2000) for social skills training was shown to be generally appropriate for Tiwi children. These verbal terms seem to have been readily grasped by Tiwi children and can be translated fairly readily into scenarios for role plays and discussions in which the children can participate. The children have shown fairly quick recognition of the problems defined in action scenarios. The fact that this increased over the course of delivery of the program was undoubtedly due to the leaders' increasing confidence as they became more readily able to identify themes and issues which the children could relate to.

Many materials can be used for brief games or tasks which are directly illustrative of themes of the sessions: these had to do with feelings, managing emotions, and telling stories about them. For example, "Feelings Bears" (St Lukes Resources) are cards showing bears with many different facial and bodily expressions which could be used to play a version of "Snap", pairing cards with similar facial expressions or feelings. They were also used in the combined group: for example, a card was drawn by each parent and child, who each told a story to explain the facial expression, i.e., what he/she was feeling and why. These could range from trivial examples, (e.g. "Collingwood [Football Club] lost the game" to explain a sad face) to ones with more emotional pertinence ("no one wants to play with me"). It proved helpful to prompt the parents to give some responses closer to themes relating to their child or to their home life, and to balance negative and positive feelings by example etc.

In the Combined Group, children were sometimes asked to illustrate games and act out role plays they had carried out in the Children's Group, or played other games with the parents. Games or activities played in the Combined Group include the following (Hobday and Ollier 1998): "My World" was a drawing done by the children about their "family", "community" or "country" and completed with the parents. This was done early on and repeated with variations later – for example, parents assisted the children to draw their network of family and friends. "Who's Who in your house?" was a ten-item questionnaire eliciting a mix of funny and semi-serious responses about members of the

child's household. The parent helps the child to complete the questionnaire and then read the answers out to the group. Questions, such as "who is the grumpiest?" or "Who tells the best jokes", "Who laughs the most?", "Who likes dressing up?" etc, often gave some very telling opportunities for parent and child to cooperate, and, in particular, for the parent to respond to the child's feelings relating to their home and family. "The Pit" was a drawing done by the child in the Children's Group, showing the child at the bottom of a pit, drawing others who help them out to the top. "Shivering Snakes and Lively Ladders" was a behaviour management game in which "good" and "bad" behaviours were written up for the ladders and snakes respectively and used to make a board game which could then be played by the children with their parents in the Combined Group. These behaviours were drawn from examples told by the parents in the preceding weeks and include items such as "helps by looking after little sister" (ladder) or "makes a lot of noise in the house" (snake).

In addition to games in which all participated, the team set aside 10-15 minutes for dyadic work (activity involving just parent and child) in the Combined Group. This would involve for example, the social networks drawing, in which each parent and child drew their household and the social networks (all the friends and families and the activities outside of the household) in which they were involved. In the Combined Group, parent and child compared and completed their drawings, discussed their differences, etc.

The development of games and role plays was essential to the functioning of both the Children's and the Combined Groups. Facilitators joined in with the children and played out various scenes from home or peer group life. There was considerable variation in the linguistic and interactive skills of the children, and many children and some parents were shy or inhibited. In some cases, both parent and child had withdrawn, minimally expressive styles. It was important to get such a parent to show an example by making an active contribution. In other cases, a highly expressive parent had a child who was not expressive, and who refused to communicate. These children were more easily encouraged to express themselves through activity with the other children. In general, these activities were needed, firstly so that the facilitators could identify themes in the children's interaction with one another, and secondly, to encourage the children to develop the confidence to express themselves in a group which included their parent and other adults. Some children enjoyed being "passengers" in the role plays, contributing little of their own expression or initiative – however, despite steadfastly refusing to talk or to be exposed on their own, it seemed to be very important for those children to feel included, and to experience the attention of onlooking parents as they joined in with the other children.

#### **Adaptation of Themes in the Parents' Group**

The parents' program followed in broad terms the themes set out in the Exploring Together Program Manual (Littlefield, Trinder et al. 2000), concentrating first on eliciting the parents' feelings about their children and their capacity to observe the individual child's behaviour. Many parents did not readily articulate either feeling or observation about an individual child; the form of discussion was difficult for some of them at first. In the early sessions, the facilitators placed emphasis on gaining reports on

the child's behaviour at home, on the role played by the child in the household and its processes, and, as far as possible, on the significance of the child's behaviour for the parent attending. Then the sessions generally proceeded through other themes: ABC, approaching *Behaviour* in terms of *Antecedents* and *Consequences*; the idea of behaviour management plans; exploration of *passive, aggressive and assertive* parenting; detailed exploration of family processes, including *family of origin* and the *family now*, i.e. the family as it was at the time; and, where appropriate, elicitation of parents' own feelings about their upbringing.

The Exploring Together program allows for flexible response to the themes and problems of participating families, so that group therapeutic work remained an underlying dimension of the program's functioning. However, the cognitive-behavioural approach to parenting with its emphasis on the logic of punishments and rewards remained the "platform" on which the therapeutic, problem-solving dialogue with parents unfolded. The central strategy of Exploring Together is the formulation of behaviour management strategies or plans, linked to the ABC of *Antecedents, Behaviour* and *Consequences*. However, this theme or sequence of themes is difficult to sustain, and is of questionable validity in the Tiwi context for two broad reasons. Firstly, some of the basic understandings may be difficult to translate or to illustrate in the Tiwi setting - such that it may take facilitators some time to learn how to enter into dialogue with parents about even fairly simple scenarios concerning the consequences of behaviour and/or parental intervention and response. Secondly, there is a degree of cognitive foreignness about the idea of *behaviour management* and many of the styles of thinking associated with or presumed by it. This can be understood firstly in terms of general attributes of parenting and Tiwi parents' attitudes and beliefs; and secondly, in terms of the problems of thinking about antecedents and consequences of behaviour in the Tiwi family context. These issues are illustrated in case material in Chapter 5.

Formulation of a behaviour management plan (BMP) requires that the parent can achieve a relatively stable conception of the child's behaviour as a consistent pattern, and that he or she can in turn formulate a strategy for responding to it. This works best in cultures in which parental authority and parental responsibility for a child's behaviour is relatively clear and unambiguous. The social learning theory behind the behaviour management plan maintains that behaviour is a product of reinforcement, and that it can be changed by intervention either to alter consequences (rewards), or to alter antecedent conditions (Littlefield, Trinder et al. 2000). The idea presupposes that the parent has or can achieve sufficient autonomy to consistently pursue a strategy or can be encouraged to do so over time. While it is not impossible to operationalize this logic in the Tiwi setting, it is certainly difficult to do so for many, if not most parents. It is also possibly inefficient and perhaps ineffective, given the nature of parental dependence on others in their families and peer networks and the degree to which a great deal of interaction between parents and children is indirect and mediated by the presence of third parties in the family or household setting.

The group-work for Ngaripirliga'ajirri therefore pursued themes of family functioning with the parents – identifying who's who in the family, how members interact with each

other, describing where the parents' and children's social networks overlap and diverge, trying to understand how some of the children's peer group and/or solitary behaviours might relate to family situations, etc. This allowed some parents to begin to identify their own strategies and their responses to the child's behaviour, and in turn to focus on opportunities for more pro-active, assertive action both towards others within the family, as well as towards his or her child.

As will be outlined below, numerous parents made concerted efforts to change family circumstances to improve their own and their children's situations, with beneficial effects for the child. For other parents, while there was less overt change in approach, it appeared that the opportunity to spend time with the child in the combined group reduced some anxieties, and provided the impetus for improved interaction with the child outside of and after the program.

In the combined group, emphasis was placed on interaction between parent and child in activity together. This included working together on drawings of the family group and social networks of each. As outlined, opportunities were taken to encourage role plays between parent and child, sometimes starting with children performing a role play they have done in the earlier children's group. Some parents or grandparents took readily to this activity as a form of direct communication with the child about an identified problem behaviour. Other parents or caregivers did not. Some role plays were conducted between group leaders and children, with the children illustrating for parents what they had learned in the children's group. On a number of occasions, role plays between a parent/caregiver and child resulted in direct dialogue about behaviour of concern to each. Some parents found children's criticism of their behaviour, for example, of their smoking or drinking, hard to accept.

### **Children's Group: Rules and consequences**

The Exploring Together program emphasizes behaviour management training for parents and social skills training for children. This entails a strong and consistent focus on rules as the logical consequences of behaviour. This focus on rules and consequences is found both in the content of the program, including the themes and topics pursued by group leaders and in the development of rules and the exercise of discipline by group leaders in responding to non-compliance or disruptiveness among participating children. The Tiwi adaptation of the program aims for consistency of rules and of approach to group work, but the shift of emphasis regarding behaviour management relates both to the content of the program and to the exercise of discipline in the groups.

#### ***Rules for the Group.***

One of the first aims of the children's group was to develop the capacity of the children to cooperate, share, and show respect for other people. Children were encouraged to generate rules for participation in the group, and then to discuss the consequences for rule breaches. Discussion of rules and consequences with many Tiwi children revealed that parents/carers sometimes had expectations about children's behaviours, but that these were not always recognized as rules and were not associated with clear sanctions or consequences for breach. Often children were unable to conceptualise the differences

between rules in different contexts i.e. between home, community, and school. Program leaders spent time discussing rules and the differences between possible consequences for rule breaches in different contexts. These were important foci of the first sessions.

Consequences for behavioural breaches utilised by the original Exploring Together program include the issuance of a) first and second warnings, followed by b) time out in the room (child goes to a *think about myself* corner for 3 minutes), c) time-out outside the room with a group leader (5 minutes), and, if a child cannot control his or her behaviour, d) being 'held' by a group leader until able to do so. The technique of therapeutic holding is applied as the final stage in a hierarchy of consequences, that is, after the child has been the recipient of the previous warnings and time outs. After a child has been held once in a session, the child is then held again for any subsequent breach until he/she regains control. For further information on techniques of therapeutic holding, consult the Exploring Together Manual (Littlefield, Trinder et al. 2000).

For the purposes of the Tiwi program the team decided that it was inappropriate to restrain or 'hold' children in the manner suggested. Issues raised by staff included:

1. Lack of training/experience in the technique and risks of inconsistent use
2. Possible negative reprisal towards staff members from the child's parents or relatives, or misunderstanding of the technique by participant families
3. Cultural relationship barriers between certain staff and children
4. Gender issues relating to physical contact

Despite the abandonment the holding technique as practiced in Exploring Together, there were occasions when it was necessary to physically restrain, or remove a child from harm during the course of the program. This was when a fight broke out, or a child ran off and threw a stone, or similar incidents. The restraint of a child during the course of the program occurred when there was risk of danger to child or other children or risk of danger to property. The child's parents/carers were informed of the need to restrain a child and called upon if available at the time.

With this modification, Ngaripirliga'ajirri utilized the same basic structure for the application of consequences as employed by Exploring Together:

1. 1<sup>st</sup> warning by leader
2. 2<sup>nd</sup> warning by leader
3. Time out / think about me corner 2-4 minutes
4. Outside the room with a leader 4-5 minutes
5. Parent notified and outside the room for 5 minutes
6. Child returned to school by parent (if available) assisted by a leader for duration of that week's session.

While excluded, the child missed out on any prizes or incentives for which he or she might have otherwise been eligible during that week.

The Tiwi program incorporated a system of small prizes or rewards for children who followed the rules or exemplified desirable behaviour in weekly sessions, with an

emphasis on the group contributing to choice of prize-getter. A small prize was given to each child at completion of the program. During the sessions leaders established a chart with each child's name, and could place a tick or sticker beside the name of a child displaying the required behaviour; leaders at times stopped the group and commented on why a child may have earned the tick, or congratulated the child for an achievement. After the child gained the required number of ticks they received a football sticker. In cases where children had severe behavioural and emotional issues, leaders attempted to identify for comment or praise even small instances of positive behaviour, in order to bring the child back into a positive relationship with group work.

The team took care to ensure that children were given opportunities to repair rule indiscretions through negotiation with leaders and the group. After a child received a warning or had to spend time outside, he/she would eventually be given an opportunity to catch up or gain some ticks for good behaviour. If a child did not earn a reward because of negative behaviours during the session, the reasons for missing out were explained, and the child informed of an opportunity to catch up on rewards during the following week's session.

### **Summary**

The specific innovations in content and approach for the Tiwi program remained generally consistent with the original structure of Exploring Together, even with development of particular themes and scenarios, and some different rules for the Tiwi setting. Overall, the major shift in focus was away from what might be called the individualizing, linear nature of the behaviour management plans towards an emphasis on group work with clearer affiliations with group and family systems therapy. Changes in content and activity reflected the need to elicit "stories" from parents, about their children, about themselves and about their families, and to use drawings and other activities as a means of eliciting themes of concern. The content of program needed to be adjusted for comparatively low levels of literacy among parents and children, with the result that, a) options for homework were more limited, and b) discussion tended to work through stories, action scenarios and visual rendition of key themes in drawing and other activities.

The objective of promoting self-observation among Tiwi parents needed to be pursued by exploring accounts of family life and relationships in order to contextualize parental actions and to develop a discussion of alternatives with them. It was not possible to simply assume that Tiwi parents would easily respond to the notion of "problem" and engage in a discussion directly *problematizing* the behaviour and motivations of their children or other family members. Tiwi communication styles do not always allow direct attributions of this kind and causal connections between parenting and children's behaviour are not commonly made. The idea of parenting as a social role appears to be increasingly open to reflection among Tiwi, partly as a result of exposure to the mainstream media and increasing reliance on health and other services. Increasingly, blame is directed at parents from many sides, particularly from older people towards youthful parents. However, this does not mean that discussion of connections between parenting and child behaviour is easy to achieve.

## 5. Child Behaviour, Parents and Families

This chapter contains three sections: 1) it outlines the processes of group work in the context of the Tiwi communities, drawing attention to the way group interaction relates to themes in everyday life and to parents' and children's concerns and anxieties; 2) it explores case material relevant to Tiwi parenting and parent-child relationships as encountered in the program, and in relation to which the program's processes have been redeveloped; 3) it provides an assessment of reported change for individual children and their parents.

### 5.1 Group Work With Parents and Children

This section examines group work with reference to the pattern of interactions in the children's, parents' and combined groups. The strategies adopted by the group leaders have at times responded to unforeseen pressures and responses by children and adults alike. Each group forms in its own way and responds to external influences both as a result of what individuals bring to the group, and as a result of the way patterns of interaction within the group mediate tensions brought by each person from each family to the group situation. Against what is brought to the group from outside, there are pressures and tensions generated in the course of group work which affect the readiness of parents to continue attending and shape their styles of interaction within the group. These may relate to anxieties about disclosure of emotions or of difficulties in their family situations, or of issues related to the parents' individual conduct.

#### **Group work, group formation and barriers to group work**

In general terms, the program's consistent focus on children and their conduct, rather than directly on the parents' behaviour is an important mechanism for managing of parental anxiety. However, the focus on a child's behaviour can arouse anxiety in parents about what is required of them, about being "blamed" for the child's situation or conduct. Tiwi frequently reply with the phrase "don't blame me!" when simply asked factual questions about another person – as though resisting being singled out with the responsibility for knowing about another person, even their own child or grandchild. In a group setting, the focus on individual motives for behaviour – the child's or the parent's own - can evoke feelings of shame, particularly in some younger parents.

Disclosure of aspects of their lifestyle – drinking or domestic conflict – was a source of strain for some parents. Some young parents drank heavily, or smoked *ganja*, and this appeared to make them ill at ease and overshadowed their participation in the program on behalf of their child, in some cases because they were directly affected by substance misuse during session times (by headaches, injuries, anxieties from the night before). A child's behaviour sometimes reflected directly on the conduct of his or her caregivers: for example, a child threatened to injure himself if the parents did not come home from drinking at the club. In such cases, any change in the child's behaviour might require a big change of the parents. The child's behaviour thus became a source of resistance to discussion of responsibility for the child, and sometimes a barrier to parental participation

outright.

While in general the focus on children's behaviour reduced parents' anxiety, it could nonetheless increase anxiety in response to discussion of related personal and familial issues. Furthermore, specific tensions sometimes arose between parents and families – linked with the behaviour of children or other family members - which rendered participation in the groups difficult.

For example, in a Melville Island community, subtle but powerful tensions arose at some key points during one term's work. A mother called "A" was daughter of a local traditional owner, and therefore a traditional owner in her own right. However, she had lived for fifteen years in Darwin with a partner from a mainland Aboriginal group. Her children had very little experience of Tiwi life, so that, despite strong kinship affiliations with central landowning groups, they were in many respects social outsiders. The boy referred to the program was anxious and fearful, and often excluded from peer group life; his mother claimed that she had had to take her son's part after victimization by local children when they shifted to the community. The boy's older brother was much more aggressive and was often fighting and in trouble; he was frequently held responsible for vandalism and attacks on other children.

The mother, "B", of another boy participating in the same program was a close cousin of mother "A", but unlike "A" had lived all her life in the local community. The two women's sons made progress towards an alliance and improved cooperation during the program, although the boy from Darwin remained sensitive to rejection. During this period, the difficulties with the older brother simmered, and mother "A" became sporadic in attendance. One day, there were reports of a physical attack on the son of mother "B" by the elder son of "A". During the program that day, it was impossible to get all of the parents in the room together. There was a constant progression of people absenting themselves to smoke a cigarette, with the effect that the parents' group leader was faced with a succession of individual interviews, with others leaving the room as any one parent sat down to speak to the group leaders. It was impossible to assemble the group to try to frame the issue for discussion. Mother "B" eventually left the session altogether.

In this case, there were almost certainly potentials for tension between mothers "A" and "B", both members of a central landowning group, but unequally placed in local community life; these potentials were amplified by the incidents of conflict involving mother "A's" children. The evaporation of the group on that day seemed to express a generalized wish on the part of all the mothers to avoid creating a situation which might lead to direct confrontation or to the exclusion of either one of the parties most affected by these tensions. Mother "A" was absent after this and returned only for the final sessions. However, mother "B" also stopped coming, for other reasons.

The son of mother "B" was very critical of his parents for their drinking. He would make sharp reference to their behaviour when drunk at the club or at home in response to any implied criticism of his frequently naughty, disruptive behaviour. The parents had acquiesced in a situation in which the boy mainly lived with his grandmother, but would come and go, making demands on them, disrupting their

household, accepting direction or correction from no one. His maternal aunts protested at behaviour which would see him take food or demand money from any of them even at the expense of their own children, as though meeting his needs were everyone's first responsibility. His mother, "B" attended the program at first, but was quickly annoyed with her son's behaviour and his criticism of her drinking. She appeared to want to avoid involvement with him, bringing her toddler as a distraction or a shield. She eventually suggested that the boy's father come in her place. He did so, from the fourth week onwards.

This boy's behaviour in many ways reflected the mother's own imposition of herself on her family group, particularly her mother and sisters, through her expectation that her son could be left to be looked after by them. This delegation of responsibility for him was reinforced by the behaviour of his father, who was minimally engaged with him, and, like the mother, was a heavy drinker, often absent from the community, and, two years before, suicidal. Although he enjoyed participating in the program alongside his son, the father said that he had no hope that he could change things with his son, that they were all too set in their ways. This kind of situation reflected the difficulty of maintaining the involvement of disengaged or avoidant parents in the program, particularly where the child showed overt opposition to or withdrawal from the parent.

***Parent-child interaction and resistance to disclosure in group work***

Underlying all the various circumstances described, there was also a general tendency among many parents to withdraw after personal emotional disclosure in the group. This was in some cases reinforced by the emotional concerns of spouses or partners outside of the program. The team observed that a successful session during which important emotional themes came into the open for the first time would often be followed by the absence, sometimes for two or more weeks, of those parents who had appeared to "open up" with personal disclosures.

A young mother's relationship with her daughter was characterized by distance maintained by criticism, ridicule and threats on her part, countered by disruptiveness, defiance and some provocative attention-seeking by the daughter. One such provocation involved theft of money by the girl. The mother knew about it, but had not yet confronted her daughter. What she might do was discussed in the parents' group after talk about the ways children seek attention through negative means. These issues then came close to the surface in the combined group, when the little girl discussed having had money over the weekend (the stolen money) then losing it when swimming. The mother was able to let her know that she knew about the theft, without confronting her directly. The girl had been fidgeting and sitting at a distance. Suddenly, she was lying in her mother's lap and letting her mother groom her and hold her for the remainder of the session. This was the very first instance of reciprocated physical contact between the two during the program. Previously, in the combined group, the girl had wriggled and squirmed, always at a distance from her mother, sometimes sitting still when next to one of the non-Tiwi male facilitators. (The last tendency may reflect something to do with the absence of a significant relationship with her father, about whom she was frequently teased by her mother's relatives, but who was not available.) After this sudden and compelling show of intimacy between the two, the mother appeared to take flight; she was absent from the program and actively avoided team members for three weeks.

As with mother “B”, this mother felt pressured by her child’s behaviour, which she tended to resolve by criticism, withdrawal and non-responsiveness.

Parents often retreated from the focus on children’s behaviour and the disclosure of family issues after two to three weeks, by saying that everything is all right, the child’s behaviour “is all right now”, that there are no problems any more. It would then become difficult to pick up any themes from the last session, and hard to elicit any new stories about the child or about the parent’s own actions over the preceding week. This was the most common kind of resistance to further exploration. Moving to structured tasks and topics in the group was needed to restart these parents’ involvement in discussion. New material then sometimes emerged over one or more sessions and could be related back to ongoing themes and observations regarding the child.

Other forms of resistance or silence took the form of complaint about the family situation: for example, complaint about a husband who refused to take responsibility for a son’s behaviour, who was never there, or similar themes. This could indicate real feelings of powerlessness, but was also a way of refusing to explore the child’s or parent’s situation further in discussion. In some cases these feelings of helplessness were related to other aspects of the family situation which were beyond the parent’s control – the behaviour of nephews or sons, and their influence on the younger children - as in the case of “Kirilee” described below.

*Conflict over responsibilities for male and female children*

Many mothers showed concern about how to relate to their sons from ages six or seven onwards, and were at first awkward in combined group work. Socially, they expect the boy to enter or “be taken” by male society, and were uncomfortable with the fact that in the combined group the boys had the opportunity to pressure their mothers with childish, controlling behaviour. In everyday life, the mothers normally avoid, withdraw or retreat from this behaviour. It needed to be made the subject of combined group discussion. However, such discussion could increase a mother’s anxieties and needed to be offset by attention to group tasks to help structure interaction with her child.

For Tiwi, the expectation that fathers take increased responsibility for sons increases with the child’s age. However, some fathers seen were withdrawn, uninterested or unapproachable. Their sons failed to gain direct acknowledgement, their disruptive behaviour reflecting displaced anger at their withdrawing fathers. Numerous cases illustrated these themes.

One father and mother could never resolve who was to attend the program with their nine year old son, and would often argue about it right up to session commencement, with the father usually claiming that he had some important council business or a meeting to attend to, walking off and leaving his wife at the group. The group work was never able to get to a point at which the son’s need for recognition from his father was acknowledged. There were frequent reports of his son coming home, finding no-one there, and walking off, angrily throwing things or shouting at his younger siblings.

Another youth of 11 was in a similar situation, with his father and mother wrestling over who should attend, the mother eventually winning out. The father did attend for a number of sessions, but the boy steadfastly refused any communication with him, appearing to use silence as a way of rebutting him. There were stories of his bad behaviour at home, throwing stones at the neighbor's dog to embarrass the father, slamming doors. He was seen writing graffiti on the school walls. The father's wish was that the boy leave home and follow his elder brother to another community, and he drew back in the face of the provocative behaviour, allowing it to escalate in order to force the boy to assert his independence by moving out.

Fathers needed steady encouragement by the male group leaders to attend the sessions. In practical terms, many boys do not have access to a father – due to separation of parents, death, re-partnering of the father, etc. Nevertheless, involvement of fathers in the program was potentially beneficial for those boys with access to them. It could significantly reduce the difficulties mothers had in taking responsibility for their sons. The team considered whether it was desirable to establish occasional all-male groups of fathers and sons for older boys. However, for the primary school program, the preference was retained for participation in mixed groups, with boys and girls and male and female caregivers. However, it became clear that the assessment process should explicitly consider the possibility that a father attend in some cases, rather than accept that the mother will attend without further questioning.

#### **From *Strong Boys* to *Just Boys*: Reactions to parental non-attendance**

Program theory underpinning Exploring Together would assume that parental participation is a key to program outcomes and to the sustainability of those outcomes. The main pathways would be changes in parents' and children's interaction, changes in parenting approach, changes in the child's capacity to interact with peers in the children's group. For children whose parents attend little if at all, it could be expected that the lack of parental participation might limit positive outcomes and also limit the sustainability of those outcomes achieved. However, the situation appears to be more complex than this.

With very few exceptions, children were enthusiastic participants in the program. As noted, parental attendance was more patchy, with a small number of caregivers failing to come throughout. Normally, when a parent was absent, the child was returned to class after the children's group. Some children objected strongly to this and exceptions were made for special occasions as described. Overall, considerable effort was made to secure the presence of parents because the team was concerned that breakdown of parental attendance would have a negative effect on the child.

In Term 3, 2002, two boys were referred for oppositional and frequent wildly disruptive behaviour at school, including breaking windows, talking back to teachers and running away from school. The attendance of adults at the program was, in one case, entirely lacking, and in the other, patchy and problematic. The father of one lad lived with his own parents and the son. There was constant disagreement between father and grandparents about who would attend for the boy. The grandparents were adamant that the father attend, while the father agreed at first, but took flight at every point, eventually attending no session at all, despite the best efforts of the team. At about week five, the

boy suggested that he might leave the program, because his father would not attend. However, he appeared to consciously adjust to his father's absence, and remained committed to the program. The other boy was looked after by his grandmother. She and the boy's mother attended a small number of times, but resisted any engagement with the program, the grandmother preferring to point the finger at many others whose children were as bad as or worse than her grandson, refusing to focus on his behaviour at all.

The team had become a little despondent about the outcomes of the programs for these children (and for others whose parents failed to attend). It was therefore a matter of considerable surprise that, at post-program interview, teachers were most definite that both boys had made striking improvements during the term, that the behaviour for which they had been referred had entirely disappeared, and that, particularly in the case of the boy whose father had not attended, there was improved academic application and leadership in class. The boys' improvement was discussed at the school: the principal was extremely pleased, and reported to a number of people that these boys had changed from being "strong boys", back to being "just boys" again.

In fact it was found that a number of children whose parents either attended very little, or dropped off during the program, nevertheless showed clear improvement, according to teacher reports, sometimes markedly so during the program. Mack and a girl in the same group, called "Liz" (case reference: 101), whose parents dropped out of the program half way, and "Jodie" (156) whose stepmother did not attend at all, were reported by teachers during the program to have shown marked improvements in attentiveness and compliance, having substantially dropped the oppositional and disruptive behaviours for which they were referred. It thus appeared that participation in the children's group alone, as part of the whole process, could have a strong effect for children. It might be that the program provided them with support which enabled them to make some adjustments to relationship changes or stresses in relationships with their parents or others. This effect may begin already at referral, as the findings in chapter 6 below suggest. That is, the fact that children were selected by adults to join a distinctive group, and that they have support both of the other children and of a team of adults constituted a relatively powerful source of acknowledgement and attention which was reinforced by the group work. It appears, at least in some cases, that this could insulate the children from strains in their environment and even facilitate their attempts to negotiate transitions which involved persons other than or in addition to their parents as sources of care and support. That is, the program may not only assist parents and children, but may also support children by themselves to achieve positive self-reliance without antisocial tendencies.

The question must be asked, however, whether this beneficial effect of participation is sustainable. The two "strong boys" were certainly reported by teachers to have at least partially slipped back to their old ways, within six months of the program's end. "Mack" (see below) appeared to return to being somewhat angry and grumbling and occasionally disruptive at school as his relations. Nevertheless, the principal of MCS emphatically stated around the time of follow-up, "All the boys who have been in the program are no trouble any more".

Children without attending parents took part in groups with a number of children whose parents remained much more actively engaged than the other parents, with higher attendance and generally higher interest in the program. Perhaps surprisingly, teachers reported little improvement for some of these children with none at all in one or two cases. These were all situations in which, despite the parental interest, there was considerable conflict and ambivalence between the children's parents, as well as ongoing issues such as substance misuse and sibling conflicts, which remained at the program's end. Such family dynamics may respond little to children's participation in the program, and children may continue to struggle to deal with them. They may also respond only slowly to parental experience of the program. Thus one would speculate that for some family situations in which there is relatively high parental interest in attendance, there may at the same time be less clear-cut improvement on the part of the children. Improvement on the part of children may be dependent on improved parental response which may be slower in developing, for example, because it is linked to changes in marital relationships or other factors. It may involve those "big changes" in parent behaviour referred to above. However, despite these qualifications, less direct and less immediate improvements might nevertheless be sustained over time as a result of parental participation.

If parental attendance is associated with unclear outcomes in some cases, there have been many more cases in which parents and children together seem to have made significant positive changes. As indicated earlier in this chapter, the program seems particularly successful in cases in which a parent and child are negotiating transitions in relationships which may related to deaths, separations, and other changes in family arrangements, which are sources of strain to the child. As in the case of Russ's and Marietta's mothers, described below, the program appeared able to encourage parents to recognize and much more assertively respond to the points of strain generated by these adjustments, and to act in ways which directly advantaged their child or children.

The questions raised here about the change mechanisms through which program effects are generated and sustained are well supported by case study analysis. They suggest that it would be of some value to ascertain whether improvement observed for some children could be reinforced and better sustained if there were follow-up activities aimed at the children not necessarily premised on parental involvement.

## **5.2 Parents, Active and Passive: Cases and patterns**

The redevelopment of Exploring Together in the Tiwi context entailed an effort to understand the determinants of the child's behaviour in the context of Tiwi extended family life, paying attention to culturally sanctioned patterns of parental response, and ideas of responsibility for dependents within extended family systems. As indicated, this purposive exploration of family functioning is one of the most important emphases in the adaptation of Exploring Together for the Tiwi setting.

Based on appraisal of cases seen, a given child's behaviour may reflect:

1. present tensions in family relationships which can either be referred to as *transitions* related to deaths, parental separations, foster-care or age-related transitions, or as characteristics of the *family system*, in which particular relationships have the effect of causing stress on the child
2. specific impacts of explicit strain or severe trauma; for example, exposure to marital violence, deaths of parents or family members by suicide or homicide; chronic substance misuse by a parent or others; direct violence towards a child
3. withdrawn or externalising behaviours, sometimes including overtly antisocial tendencies, reflecting possible disorders of varying origins; these interact with current family transitions and family processes, but are not explained by them.

The program's model is currently best able to recognize and talk with parents about the issues in 1), which can usually be elicited for discussion through talk about family processes and life events such as death or separation, etc. For 2), a number of children may be directly or indirectly exposed to strain as a result of suicide or violence or other causes. In some cases their families may have clear needs for professional assistance: for example, where a child and surviving parent are coping with the suicide of a parent (4 cases seen); or in the case of serious relationship tensions, violence and suicide threats involving parents or other family members (12 cases). This assistance is possible to some extent within the existing model. However, it may be difficult to discuss these issues at all in the group, or indeed may be impossible to do so without moving away from the focus of group work for other participants. Therefore, there are grounds for a variation of the basic model to allow for more focused work – marital or family counselling - with such parents and children. It should be noted that even in a high stress family environment in which suicide, violence or other acute trauma may have affected members, these always occur in the context of family processes and transitions which shape individual and collective responses and which need to be understood, as in 1).

For 3), there remains a need for further understanding of developmental processes in the Tiwi context, with some attention to developing the team's assessment skills and its ability to read the developmental antecedents of children's presenting behaviour. This extends to some children who have experienced developmental delay, and/or have been the subject of neglect, or who have a history of problematic adult support. Specific strategies – commencing with improved initial assessments - may need to be developed for some of these children who join the program, and alternatives developed for those who are not likely to benefit from the program in its present form.

### **Parents and their families**

Tiwi parenting commonly involves delegation of responsibilities for children from early in childhood within groups or networks of people who express relationship to parents through action towards their children. This produces some significant differences from the assumptions underlying parenting interventions like Exploring Together. For the Tiwi, the authority of the parent may be no more emphasized than that of many others in the family network, even if they are the chief resource providers and nurturers. One often sees parents defer to interventions by others concerning their child (teasing, taking the

child somewhere, striking a child), even in contravention of the parent's wishes.

In the Tiwi context, many, if not most children are raised by or under the eye of grandparents or others within the extended family group. Parents are usually neither autonomous nor independent, financially or socially, and children are not simply the dependents of their parents, but rather, in some senses, of the collectivity. Tiwi parenting is characterized by interdependence with other families and households, based on some degree of delegation of responsibility for a child to others. This may be informal, or amount to a form of fostering of the child to, say, a grandparent or an elder sister of the mother. This may occur, even though the mother continues to reside in the same house as her child. Thus, one referred child had been made the responsibility of its grandparents, even though the boy's mother and her new spouse lived in the same house.

Specific reasons for the transfer of responsibility for a child (noted in the program) are many:

1. The breakup of the spousal relationship between parents due to death of a parent or the separation of parents.
2. Serious conflict between parents may mean that one or more of their children leave to live with others.
3. A grandparent or an elder sibling of the parent may remove a child from a parent considered to be neglectful, or who has abandoned the child more than once.
4. Transfer of responsibility for a child, say to a mothers' sister, may be intended to reduce the burden of care on the natural mother, due to pregnancy, birth spacing, maternal ill-health or other family difficulty.

Sometimes fostering has occurred early in life, before the child is 12 months old. In other cases, the parent may try to bring a separation about, much later, as encountered in a number of cases seen in the program. Often relocation of a child is initiated by the child him- or herself, sometimes after overt conflict or some withdrawal of parental support as in the case of Mack, described below.

Over 25% of children referred to the program reside with persons apart from their biological parent or parents, and many of these are more or less formally fostered to a grandmother, a mother's sister or paternal aunt. These arrangements may be permanent or last for years, before a child reverts to co-residence with a birth parent. In another 10-15% of cases seen, children may live in a common household with a parent, but have been made the primary responsibility of another household member (usually a mother's mother or parent's sister). However, actual fostering out of a child is just one in a range of potentials which involve parents handing over or sharing some degree of responsibility for their children within a social network of related persons. A number of parents could be regarded as "single mothers", who live with their children together with other kin, including brothers, sisters or parents. Almost all children in the program live in households which include kin other than their parents, including foster-children as well as actual siblings, as well as aunts and uncles and grandparents.

These forms of delegated responsibility for children can be seen from a number of

perspectives. They may reflect issues in the individual life histories of parents, which influence their capacity to sustain a conjugal relationship, to maintain a family and cope with responsibility for children. In some cases, a grandparent may forcefully intervene to prevent neglect, or have responsibility foisted on him or her by a defaulting parent. However, it is also helpful to view the process of delegation of responsibility in terms of individual and family transitions, according to which loss, separation, remarriage or other reformation of relationships as family members move apart, can represent causes for adjustment which see a retreat from responsibility for a child by a parent so that the child is pushed into altered dependencies within the kin groups of mother or father.

In this context, it is important to note that Tiwi children are generally seen as having a high degree of responsibility for their own responses to the actions of parents and others, including responsibility for their own decisions about where and with whom to live. Many parents see child relocation solely as an expression of the child's wishes. However, facilitators and others may well see this as something initiated directly or indirectly by parental behaviour or caused by family difficulty, hostility, or some other cause relating to *adult* behaviour. Kids may be left, or indeed sometimes may be pushed to take decisions upon themselves. This combination of expectations of child self-reliance and parental orientation to group relationships in which responsibility for children and responsiveness to their needs is potentially widely spread produces a challenge for the conceptualization of an intervention to support parents and children.

Patterns of parenting have complex origins in Tiwi culture and the Tiwi family system. These will not be further explored here. The following examples contrast parental passivity and assertiveness, and provide a brief outline of important foci of the program.

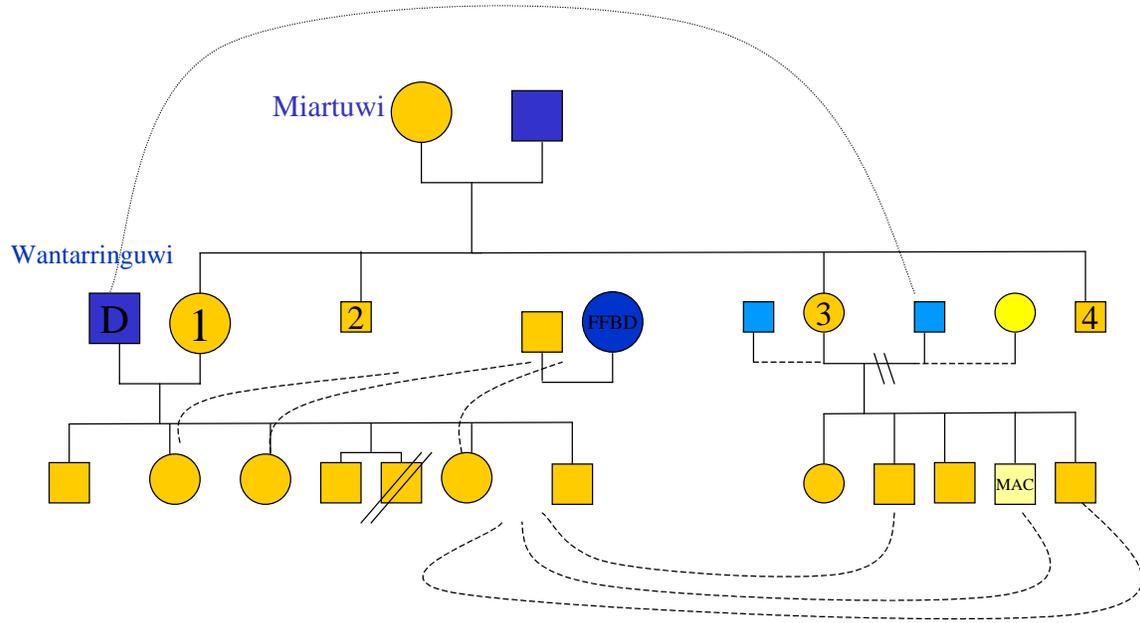
#### **“Mack”**

A boy to be referred to as “Mack” (case reference: 114) lived with his father and stepmother, his birth mother having left them for another man over a year before. Mack and his father attended the program together, with the stepmother attending for the first two weeks, although with seeming reluctance. Mack's father seemed to become more difficult to find on program days, and when he did attend, Mack and he sat at opposite ends of the room, Mack sometimes preferring to sit with one of the Ngari-P team members, D., whom his father called a “brother” and who was married to Mack's mother's eldest sister. Mack in fact already spent a lot of time at D's house, playing with D's sons, whom he called his “brothers”.

Mack's mother was number 3 in the group of his “mothers”. Their mother was with a new partner who was, if not hostile to Mack and his brothers, then at least not welcoming. Mack's father stopped attending the program altogether. Mack aligned himself closely with D, and before the end of the program, he and his two brothers moved into D's home to live with their “brothers”. Mack's father withdrew, avoided confrontation with his son, and tacitly encouraged him to make this shift – in effect aligning himself with his own new spouse over the wishes of the boy.

Figure 5: Mack and D

## D.'s Family



After the break-up of Mack's parents, departure of the mother and re-marriage of the father, does the father strengthen his efforts to respond to his young son, or does he passively 'let go', ignore the son's behaviour and thus allow the son to move away to all but live with the boy's mother's sister and her children? What should the program's response be to choices being made in this manner? Was the shift to D's house indeed the best option, to allow both of Mack's parents to renegotiate life with their new partners and eventually allow their children to seek out contact when things have "settled down"? Mack's behaviour at school improved considerably during the program. However, it deteriorated occasionally after the program ended, although he was still living at D's place. He now had occasional access to his mother for visits, and his father would sometimes visit to see him and take him out for a trip; however, the effects of these major shifts were still a source of unhappiness.

The outcomes of Mack's transition appeared uncertain, in part because his father seemed to use the opportunity of the program to withdraw further from his son. Teachers noted a very clear improvement in behaviour during the program, with the disruptive behaviour and vandalism ceasing entirely. According to the principal's reports, tendencies for this behaviour to recur in the months after the program did not negate the gains made.

Ngaripirliga'ajirri frequently encounters parents who appear ready to withdraw, perhaps out of a sense of not having control over circumstances of their relationship with their child, or because active assertion of responsibility over the child's situation might not be

perceived as sustainable given their own new relationship choices. However, in numerous other cases, parents have responded actively to problems expressed by their child during the course of the program, drawing closer to, rather than distancing themselves from their child, and becoming more assertive in managing family issues.

#### **“Russ”**

At the time of his referral to the program, Russ (case reference: 90) did not live with his parents: his father had died about a year before his referral to the program, and his mother was living separately. She expressed the intention to continue living apart from her son.

During assessment and group selection, it became clear that the mother was the person most interested in Russ. After discussion, she decided to participate, “to see what makes him like that”. He had been referred for disruptiveness and under-achievement at school. During the course of the program, Russ repeatedly referred to being “sad”. It was likely that his sadness and his disruptive behaviour alike referred to his father’s death and to the separation from his mother which followed. She described his provocative and demanding behaviour: he would come to her place of work, demand money, then deliberately break or steal things and run away when she refused him. He described how, when she walked up to his grandmother’s place, looking for food, he would tell her off for coming there to get food from them when she was not living there. He once threw rocks at her when she refused to accompany him all the way to school. As a role play in the combined group, he was asked to act out one of the incidents with his mother (making demands and being refused money by her). She then criticized him for the stone-throwing incident during a combined group session. He in turn criticized her, telling a story in which he offered to save food for her: she had not wanted the food (refusing his gesture), then growled at him later when he went ahead and ate it himself. The boy protested, “You changed your mind!” The mother cried at this. Shortly after this exchange, about three quarters of the way through the program, things began to change. The mother moved into her mother’s house, where Russ was staying. She took charge, had her younger brother and his spouse move out, allowed her eldest son to move out with them and made the decision to keep Russ, the referred child, with her. In effect, she began to treat Russ equally, and gave up trying to push him off, in the end keeping both her sons with her. There were anecdotes about resolving disputes between the brothers, indicating her rising confidence about being able to manage her relations with her sons and the family as a whole. During this time, teachers spontaneously reported that Russ’s behaviour at school was improving dramatically, that his disruptiveness had entirely disappeared and that he was showing academic and social leadership in class, receiving awards for his performance by the end of term.

The case of Russ and his mother describes a transition based to some extent on their unrecognized mourning of the loss of the boy’s father, and the mother’s uncertainties as she confronted independence as a single woman. In the context of group work, the two were able to articulate the underlying themes increasingly openly. This freed the mother’s capacity to assert herself and shape her family situation, opened up direct communication between the two and in turn led to marked reduction in anxiety and anger on the part of the boy. Due to illness and other causes, many parents find themselves confronting the

loss of or a separation from the other parent of their children. This often leads to further separation or at least emotional distance from their children as the single parent strives to push the child into the care of others. Numerous cases seen in the program illustrate tensions and difficulties of this kind for both female and male children. A number of them (like Mack) see the child end up further away from the parent rather than closer together as occurred with Russ. This can often depend on the degree to which the shared milieu of parent and child provides each of them with support to retain contact while relieving the parent of some responsibility. On the other hand some parents may seek to definitely push the child into substitute care, leaving them free to pursue their own relationship options, perhaps their drinking or smoking, without encumbrance.

To return to the referral issues, it is clear that the attendance of Russ's grandmother rather than his mother in the program could not have had the effect described, but would have prolonged a problematic and possibly unworkable arrangement. This case demonstrated that, at assessment, it is important to consider the possibility that a parent who does not live with the child may nevertheless remain the person most interested in his or her welfare and – from the standpoint of issues affecting the child and the child's medium term prospects for adjustment - may prove to be the most important person to attend.

However, at initial referral and assessment, it may be difficult to clearly identify the trends in a child's family relationships. The child's trajectory may follow a course contrary to the outcome in Russ's case – as in the case of Mack, where the father's need to consolidate his relationship with a new partner took priority over retaining his son in his direct care. If a child's position among adoptive kin appears longstanding and settled, an adoptive parent or uncle/aunt from the current household is likely to be the appropriate choice. However, if arrangements remain in flux, it may be all but impossible to determine the appropriate course at assessment, and the team has simply to work with the issues as they arise. This was highlighted in the case of "Kimmy" (case reference: 125)

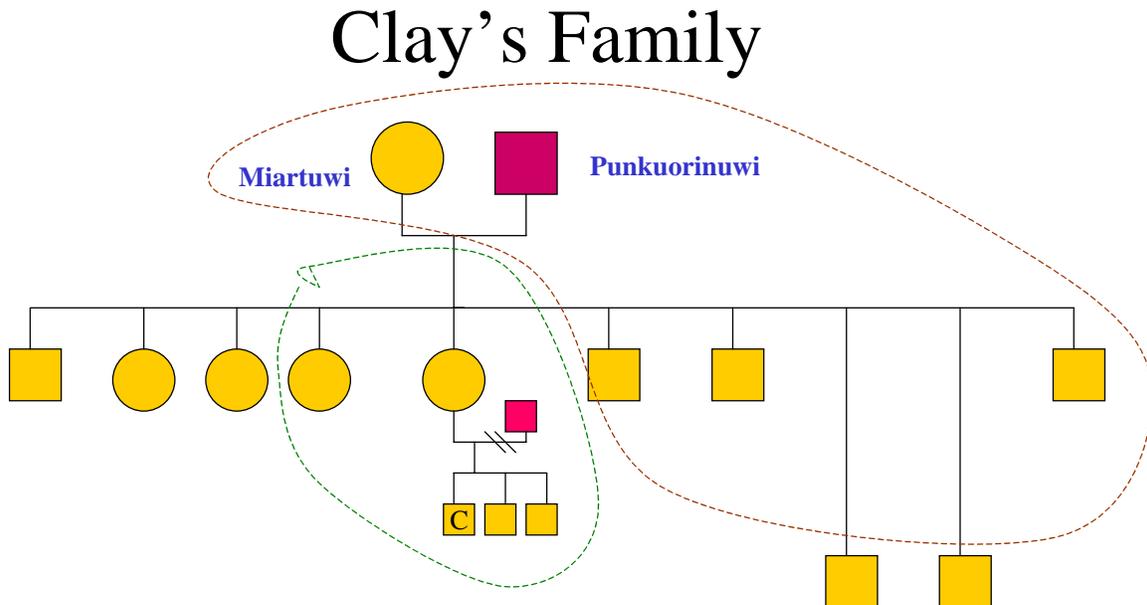
Kimmy had been cared for by her mother's eldest sister since infancy. This stepmother had recently become seriously ill, and had to leave the community to be near hospital. Kimmy's natural mother, in her twenties, asserted that she wanted to resume care for her daughter, and agreed to attend the program with her. However, after a couple of weeks, it became apparent that she was in retreat from her stated wish to look after her daughter again. She stopped attending the program and soon appeared to want to allow her daughter to stay permanently with her second eldest sister and her husband who had temporarily taken her in when the eldest sister had to leave. By this late stage the team decided that it was inappropriate to engage the second eldest sister in the program, but attempted to focus on the child's responses to her situation.

With hindsight, it might appear that the outcome for Kimmy could have been preempted at the time of referral. However, decisions about participation are intimately linked to resolution of uncertainties about responsibility for a child. Time is needed for them to be made by family members themselves as adjustment within their group occurs.

### Parenting, Delegation and Inclusion: “Clay”

The case of a boy, “Clay” (case reference: C151) who attended the program with his mother gives a clear illustration of patterns of delegation within a large family group.

Figure 6: Clay's Family<sup>9</sup>



Clay's family situation also gives some indication of points at which the content of the program dealing with “behaviour management”, for example, a planned parental response to child disruptiveness, is rendered difficult in the complex family systems which define relationships in Tiwi households. R., a young woman in her twenties, attended with her 10 year old eldest boy, Clay. Clay was referred by teachers for disruptive, noisy, oppositional behaviour. They lived together with the boy's two younger siblings and the mother's sister in a household close to that of the mother's parents, in which a number of the mother's other siblings also resided.

R. described what appeared to be a pattern of disruptive, attention-seeking, and coercive behaviour. The boy would kick a plastic bottle inside the house until told to take it outside; he frequently disrupted TV viewing by others. She recounted what appeared to be a series of incidents beginning first with kicking the bottle, then with screaming and shouting. The mother moved next door to sit at her parents' house. The boy followed and there an incident occurred in which he hit his grandmother with a shoe. His maternal uncle chased him, brandishing a stick<sup>10</sup>. At this time the grandfather had been absent from

<sup>9</sup> Dotted lines show the two households of Clay's mother and his grandfather.

<sup>10</sup> Maternal uncles are often the most prominent disciplinary authority over boys; they represent the authority of the matrilineal clan. By definition, paternal authority lacks the backing of the child's matrilineal group.

the community over a number of weeks.

R. had initially characterized this behaviour as typical of Clay. However, as the theme was pursued over the following two weeks, she said that the problem had gone away when the grandfather had returned to Nguiu via Darwin. She then retreated entirely from any conception of the boy's behaviour as problematic. The behaviour previously described as typical was then reduced to a specific episode with no broader significance. The mother would not entertain the idea of a plan, since there was now no object for it. The meanings of the situation were teased out further over the following weeks. The boy's grandmother had been expecting her income tax refund. The entire family was on tenterhooks about the grandmother's tax. (The whole community was similarly on tenterhooks about "tax" for a number of weeks during the program.) The boy had been promised a video games player, but the grandmother went to Darwin and lost all the money in the casino. According to the mother and the Tiwi facilitators, this explained his attack on her with a shoe. The boy was pacified by his grandfather over the phone. He said that he would take the boy and his little brothers shopping in Darwin when he returned. This took place, the boy got a new football and was happy - and, said the mother, all the behaviour problems ceased.

That this incident and the mother's shifting evaluation of it are reflections of the family situation, became clear when R. went on to talk about her father's role. He was very protective towards her boys, his grandchildren. He wouldn't let them go hunting in the bush with their father's kin (and was said by Tiwi facilitators to have driven off the boy's father, regarding him as not suitable for his daughter). He would take the boys away hunting in his boat rather than let them go out with paternal aunts and other kin. The grandmother and mother would tell the boys to go off hunting with their father's kin when the grandfather was away, if they wished. The latter would ring up when away to check up on their well-being and they would complain about family members, including their grandmother to him. He would often take them to sleep elsewhere when there was drinking and fighting at home. The boys modeled themselves on his coercive style. The referred boy and his younger brothers would all threaten to make trouble (for example, to disrupt situations, break windows, or "humbug" things) or to ring their grandfather if they didn't get what they wanted. The boy's mother went on to talk about how the boys played everyone off against their grandfather's authority. She acknowledged her own tendency to delegate responsibility for action to him. So, when the group was considering consequences of behaviour - and passive parenting - she acknowledged that her parental strategy was to do nothing, to allow a behaviour to escalate, until someone else had to intervene (her father, or her elder brother). Her denial that there were any problems after her father's return was a reflection of her acquiescence in the re-establishment of the family equilibrium which had been disturbed by his absence.

In the combined group, this mother and son were capable of relaxed and confident intimacy, working together on a number of tasks. In the children's group, the boy was boisterous and assertive. He was overwhelmingly oriented towards adult response at the expense of being able to interact smoothly with his peers and negotiate transitions between tasks. He would become mildly disruptive and/or disengaged when adult

response could not be had. His situation was one in which he emulated the dominant grandfather, but also had in effect to compete with a large number of adults, including maternal aunts and uncles, to assert his rights, gain adult attention and the attention of his grandfather.

In this context, the role of the tax return and the payday was important: parents and grandparents often placate children with promises of a big shopping day or presents or money when the tax cheque or the payday or the termination pay comes in. This not only produces rising anxiety as the moment approaches, but also a pattern of anxious, aggressive, demanding behaviour as the child anticipates all the demands by other people which the payday will give rise to. Children can not trust that money will be withheld for them; if they do not get it when it is there, it is likely to be lost, either as a result of demands on the holder of the money, or other temptations such as gambling, even including the flight of a caregiver to Darwin and the casino. Demands and angry threats to make trouble can rapidly escalate. One often sees children on a payday running around with large denomination notes, their demands appeased while there is plenty, only to be fended off and told to ask other kin during the lean intervening periods. Fairly aggressive demands or “crying for” money by children, and flight or avoidance by parents is common. With money – and other signs of parental attention - there may be limited capacity to ration “rewards” in the sense indicated by the BMP and the linear model of *Antecedents, Behaviour and Consequences* favored by Exploring Together. Furthermore, the escalation traps into which parents fall (and which condemn them to capitulate when there is plenty, to take flight and avoid when there are more limited or lessening resources) are very much a function of collective processes against which individuals pitch their demands for attention and gestures of reward.

This family group evidenced multiple coalitions at different levels, all under the sway of a strong central figure. The mother’s authority over the boy was based on her close personal relationship with her firstborn son, rather than on her own authority over him within the family group, although she was a favored daughter. With a parent deferring to the authority or influence of others in the extended family, the exploration of possibilities for assertiveness can not presume that the parent will actively grasp the initiative, as Russ’s mother had done. For R. and Clay, the team leaders focused on developing the discussion of relations within the family in the parents’ group, with the mother and child able to map the family together through some exercises in the combined group.

Within two months of the end of the program, R. gave birth to a baby. Her pregnancy had never been mentioned or raised as an issue by her (or anyone else) during the program. It may well have been an underlying theme for mother and son, with the program offering the mother the means to reassure him of his place through this special contact. Her closeness to the remaining family group was no doubt also influenced by the additional need for the support of her family.

#### **Suicide Threats, Anxiety and Stress: “Marietta”**

As outlined above, the program identifies children who have witnessed or have otherwise been exposed to serious violence, suicide attempts, actual completed suicides and chronic

substance misuse. As far as can be ascertained, seven children referred to the program have a parent who has died by suicide, one, the suicide of father and an uncle. A still larger number have been exposed to suicide threats by parents, siblings and other family members or neighbours and acquaintances. It is probably fair to say that no-one in the Tiwi communities could have avoided witnessing persons make public suicide threats of varying degrees of seriousness at one time or other.

Marietta was a good student at school, with no difficulties reported by teachers. However, she was referred to the program by family members, because she would lock herself in her room and threaten suicide. The Tiwi group leaders readily identified contributing factors in the girl's family situation. Her mother had separated from the girl's father over a year before. The latter was from the mainland and was now in jail. According to the family, there was significant spousal violence throughout the relationship, until the separation. There had been physical abuse of the daughter, Marietta, by her father, in early childhood.

At the time of Marietta's referral to the program, her mother was in an ambivalent relationship with a young man in the community. She would see him from time to time, but was resisting his demands for permanent cohabitation. He would threaten suicide, by climbing electricity poles outside her house, shouting at her, threatening to swim out to sea. It appeared that the girl's behaviour was in part a response to the mother's enmeshment in this relationship with the man. It may have been a warning to her, a protest, or her own anxious reaction to a perceived threat of abandonment by her mother. Some thematic material emerged concerning the girl's relationship with her father: Marietta suggested that she would visit him on the mainland, that this was for her to do, and that her mother should not be involved because the violent conflict between the parents would emerge again. Marietta seemed, therefore, to see herself as protecting her mother and family by mediating the relationship with the father and resisting the intrusion of this new potential (step)father<sup>11</sup>. This wish to protect (by becoming a victim?) may have been a motive underlying her earlier suicide threats, as an attempt to prevent her mother pursuing the course with the other man. Marietta often looked after her youngest sister; to some extent her protests may have been on behalf of all the children. The middle sibling was often angry and disheveled, and after fights with her sisters and being growled at by her mother, would go to stay with her grandmother.

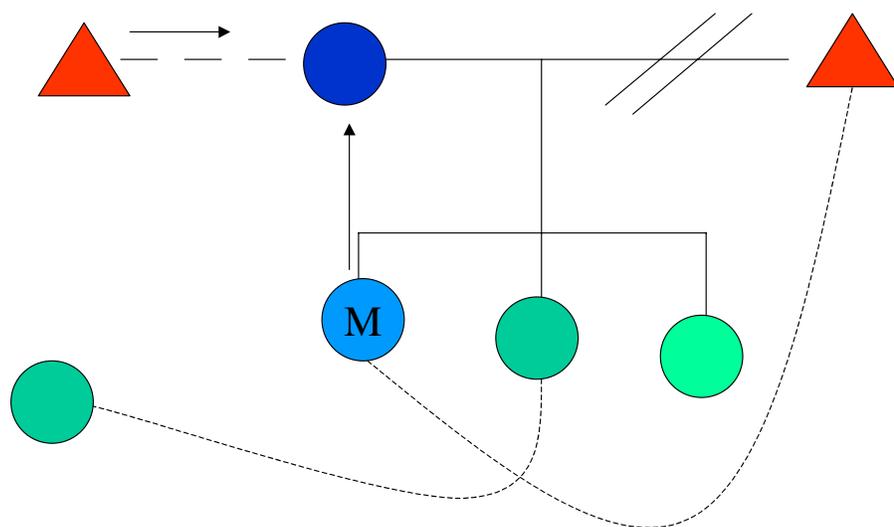
During the course of the program these events and themes were discussed, often in Tiwi language with the Tiwi group leaders, one of whom was a neighbor and lent the mother some informal support between sessions. The mother occasionally discussed her situation with non-Tiwi facilitators, usually before or after sessions.

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<sup>11</sup> The dotted lines refer, on the left, to the middle sibling's tendency to take angry flight from the family situation to seek respite with their grandmother, and, on the right, Marietta's interest in retaining the connection to her father, despite the abuse. Over a year later, she did in fact visit her father on the mainland.

Figure 7: Marietta's Family

## Marietta's Family



Towards the end of the program the mother began actively to change her living arrangements, moving into a new house with her sister and ending the relationship with the problematic suitor. In a sense, the most visible changes in this situation all occurred outside the program. Marietta appeared to respond positively, her anxieties appeared reduced, as she showed recognition of her mother's efforts on behalf of the children.

### 5.3 Parenting, Family Transitions and Group Relationships

As indicated earlier in this chapter, the development of an effective intervention for Tiwi children and families means responding to distinctive styles of parenting and family organization. In Australian culture generally, parenthood is ideal-typically associated with authority, responsibility, autonomy and financial independence, with children defined as the dependents of parents. Children's potential for interpersonal relatedness to others beyond the immediate family is given little emphasis compared with, for example, their progression through formal education. By contrast, the Tiwi tend to see delegation of care for children as a means of extending and affirming the relationships of a child's parents to other adults within and outside the immediate family group and to adoptive adults where a child is fostered out. It is not seen as a termination of the parental

relationship to the fostered child, but in some senses as an expression of it. As a parent, one “shares”, even exchanges children (that is, exchanges responsibility for children as a form of acknowledged service) and in some ways sees the children as extensions of oneself in relationships with others, in ways often actively discouraged in non-Aboriginal family settings.

Children are born into a world of relationships to kin; basic expectations about children’s development encourage the acquisition of the competence to engage with those many related others through their own independent efforts. This includes not only “family” or kin, but also other children. Allowing for some diversity, it is probably fair to say that Australian culture is ambivalent about the peer group, seeing it as an influence potentially at odds with parental authority and desirable child trajectories. This ambivalence is not evident in Tiwi culture. Children are actively encouraged to be independent among other children, beginning with close kin, particularly siblings from as young as three to four years of age, extending to wider groupings of children as they grow. Parents actively encourage children’s independence among children, while children themselves rapidly become active agents in their own upbringing in children’s group life.

While parents can draw on the support of others in the family network as an important resource, these others also often constitute a powerful limitation on parent’s readiness and ability to act in recognition of the needs of individual children. The pressure of many layers of demand acting within a large household, along with the alliances, separations and informal adoptions which shape a child’s place in it, can create substantial social and emotional distance between parents and children. In some cases, the isolation or emotional deprivation experienced by a certain child may not be obvious because of the ready availability of older kin and other children to whom the child can always be deflected.

Within Tiwi families, it is not possible to work with the assumption that child discipline is the sole preserve of parents. While parents tacitly initiate many acts of “discipline”, this is always exercised in a matrix of relationships within which the parent is dependent on many others. “Discipline” may be an indirect consequence of parental behaviour, but is very often enacted by others<sup>12</sup>. This also means that some parents are not always happy with the treatment of their children by kin, whether in the form of teasing, hitting or growling. However, when this is raised in discussion, they may feel helpless to change anything, given the sense of entitlement these kin will have to act towards their children in certain ways, and given the inability of parents to take action against them: for example, for a mother to take action critical of her brothers. It is sometimes the case that *parenting* in the narrow sense is less an issue than is the functionality of an entire group, in which lines of authority, protection and care with respect to children are weak,

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<sup>12</sup> A grandmother whose grandson was referred to the program was head of a household with ten of her grandchildren, and some of her sister’s children as well as her own sons. She wanted a seventeen year-old son to act as the parent for the grandchild. The team resisted this and she herself attended. However, later in the program, it turned out that the teenager was the chief disciplinarian of the household, managed most of its resources, kept the food locked in his bedroom and was the authority over the many grandchildren, his nephews.

inconsistent or disrupted.

Thus to comprehend the context of the program, we are confronted with:

1. complex groups in which multiple lines of relationship represent the context for parent-child interaction;
2. dispersed responsibility for children with some complementarities between normatively differentiated adult roles and interdependence between generations;
3. expectation of child self-reliance and mobility in peer groups
4. little direct intervention by parents to sort out trouble except as a last resort

These patterns of responsibility for a child can be seen as a source of resilience based on the continuous availability of support for parents and children in family and peer networks. However, they can also extend to substantial withdrawal of parental involvement and support which leave a child at risk. The challenge is to define those boundaries in family functioning and parental involvement in which resilience gives way to difficulty and risk.

### **Parenting Styles.**

The Exploring Together program develops a contrast between passive, and aggressive parenting responses, and of these in turn with desirable parental assertiveness. What does a parent do in response to a child's distress, demands or disruptiveness? Two options are parental withdrawal and dyadic intensification: in other words, an intensified direct response to the child's demands or behaviours, is contrasted with non-response or withdrawal. Aggressive parental responses may occur on both sides, in active and passive modes. Desirable parental assertiveness is distinguished from aggressive or hostile responses to the child, and may consist of elements of both intensification and withdrawal/delegation. Delegation of responsibility for a child to others might be active and authoritative, or passive and based on avoidance of the conflict situation and/or retreat from a child's demands.

### ***Parental Assertiveness and Passive-avoidant Parenting***

Tiwi parents often face situations in which their children come under pressure from others. Angry reactions may be avoided by retreat and avoidance, or by a kind of uneasy tolerance, followed by withdrawal from the situation, avoiding direct confrontation with those impacting on their children.

For example, "Marietta's" household included a youth of about twelve years who was staying with her family almost without invitation; his parents were separated and avoided him. His troublemaking behaviour verged on delinquency and had developed in reaction to the lack of parental interest and control. Marietta's mother recounted incidents in which this boy would tease or pick on Marietta's young brother, once throwing him onto the mattress roughly. Often, the mother needed to go to sit outside and have a cigarette when this sort of thing occurred. By contrast, the mother's elder sister would stand up to this boy and sometimes hit him, while she herself could at most "growl".

This avoidance of confrontation is often associated with kin relationships characterized

by avoidance as in contemporary sibling relationships, in which a parent either must avoid direct contact and communication, much less open criticism of an older or same-age sibling, but (if an older sister) is also compelled to accept demands of a younger sibling as though from a child for whom they have responsibility. However it is also common in other relationships.

“Kirilee’s” mother was frequently upset by her son’s and her younger brother’s treatment of Kirilee and her adopted sister, frequently taking them away to avoid a household situation in which the two males, often drunk would pick on the two girls. Their bad behaviour was a source of concern for her, and she complained about it in more than one session, protesting that the nephew had parents he could live with, but at the same time indicating that she never asked him directly to leave.

It must be said that the son and nephew possibly completed her independent household in certain ways, so that she may have been in some senses dependent on them for its maintenance – the alternative may have been for her and the girls to stay with someone else, Kirilee’s grandmother, perhaps, in a situation of dependence on others.

During one of her many references to the bad conduct of the son and nephew towards the children, Kirilee’s mother said that she was contemplating telling them that she would report them to her mother (living in Darwin) and that she would ask her mother to call the police for her. She was unable to contemplate such an intervention by herself, appealing instead to grandparental authority in this way. On another day during the parents’ discussion, the topic of barriers to parental assertiveness was raised. In response to this, she said that when they picked on Kirilee, she would growl at her son and nephew, “see them next day sober”. Openly despondent, she said that she told them, “I might as well die.... Let *Ngawa Ringani* [our Father] take me”, and that she let them worry about this for half a day. Then she saw them and said “sorry” to them for having said this.

This is consistent with a parental style in which anger and distress are converted into threats of flight, abandonment and suicide. It is not uncommon to hear the statement, “I might as well kill myself...” from mothers under the stress of relentless competing demands made by older and younger children and siblings, or a spouse. This kind of response also indicates that parental withdrawal and inaction may be associated with depression and feelings of helplessness. The data gathered using the trial measure of parenting style for this evaluation suggests that, when parents assert their own feelings, (item: “tell the child how *you* feel about his or her [bad] behaviour”), this is associated with a sense of powerlessness and lack of assertion, rather than with positive self-assertion. By contrast, parental autonomy and self-assertion is much more associated with confident self-restraint and non-reaction to provocation or bad behaviour.

Given these considerations, what positive strategies are open to parents? Parental assertiveness may involve direct or indirect action to support a child in response to the child’s needs, distress or discomfort, taken by the parent against distractions, impingements and difficulties arising in or around the household group. Correspondingly, passive, avoidant parenting may mean letting the child react to his or her own distress and find solutions more or less without parental assistance, often, as in the case of “Mack”, at

the cost of disillusionment of the child regarding the parent's lack of concern or strength of support for him.

Often parents will only intervene in favour of a child over an older person if he or she has been physically hurt by that person. For example, a parent may say to a child who is thought to be crying excessively after being hit, "He didn't make you *matjipani* (bleed)!" Coping with aggression, teasing and threats by others is something expected of all Tiwi to some degree – despite the clear sensitivity to this kind of behaviour shown by many children seen in the program. However, while children may learn to respond to many of these provocations in kind, serious tensions or conflicts in a family may displace a child almost entirely, so that the child shifts, leaves his or her parents, lives elsewhere, without parental intervention (albeit often after some testing of alternatives by the child, for example, periods spent with grandparents, aunts, etc.). In this situation, the child may also be reacting to the failure of the parent to respond, or to some hostility or criticism, or some degree of collusion by the parent in the reasons for the shift. A part of the parental strategy for managing the demands of siblings is to allow one or more to find support outside of the immediate group.

In the case of Marietta's family, her next younger sister, the middle sibling, was often picked on by Marietta herself. She was also frequently teased or provoked or hit by the littlest, who would in turn cry to elicit an intervention from Marietta or from their mother. In managing the three girls, the mother frequently encouraged the middle child to stay with their grandmother, letting her run away there in anger. Thus Marietta and the littlest sister were in a kind of coalition which earned their mother's support, but displaced their sister from the otherwise close-knit group. Thus in the morning, one would see the littlest, already combed and smartly dressed by Marietta, crying and petulantly demanding a hair comb from the middle sister, who would resist giving up the comb, then angrily throw it onto the ground and storm off, disheveled and unkempt, to their grandmother's house or to school by herself.

Parental non-intervention may therefore also be the means by which a parent expresses his or her expectation that a child deal with things independently by relying on others. The child's response may include avoidance, even retaliatory abandonment of a parent who is a source of anxiety or conflict or disappointment. The child may relocate to the protection and support of other kin – or indeed other children in peer groups. However, the child's anger and disappointment is likely to be betrayed by his or her behaviour. This was the case with Mack, whose father withdrew further in response to Mack's behaviour. Mack's father appeared ready to withdraw or give up, because active assertion of responsibility for his son may have competed with his relationship with a new partner. The boy also encountered indifference, if not hostility from her, and the same from his mother's new partner. Notwithstanding Mack's anger, it can not be discounted that his father's response could be considered realistic and not entirely unkind, given his own relationship choices: he was in effect encouraging Mack to make use of the resources within his matrilineal group (D's wife and his family) to find a solution.

Once a parent has withdrawn from a child, it may be very difficult for the parent and

child to “reconnect”: the pattern of retreat is then too well established. One young girl, “Kimmy” was living with her mother’s older sister, as a result of her natural mother’s drinking, smoking and relationship difficulties. The adoptive mother was now ill and could no longer look after her. Her natural mother at first attended the program, saying in the first two weeks, “I want to get my daughter back...” However, she took flight after only two visits. The girl shifted in with her mother’s other sister and her husband. She eventually moved yet again, to live on a permanent basis with more distant kin. The absence of parents overshadowed her participation in the program, as no satisfactory replacement for her mother could be found. By contrast, Mack was able to move back in with his father after over a year living with D, probably as a result of improved security or lessening tension in his father’s and stepmother’s relationship. However, Mack reportedly remained a little angry and would move back with D and his boys to stay from time to time.

A passive-avoidant style of parenting may have many determinants, in the parent’s wellbeing and sense of self-esteem – based on his or her own early experience as a child - which in turn affect his or her capacity to cope with relationship ruptures, death, or other sources of difficulty, including the simple demands of others, including their children. Mack’s father (like those of one or two other children) described withdrawing into his room (after smoking *ganja*), shutting the door and turning the music up loud when the children were playing nearby and wanting his attention.

These patterns differ markedly from the attempt to shape a child’s response through active management of rewards, the style of *behaviour management* encouraged by Exploring Together. Without the advocacy of particular solutions, by focusing on family roles, getting parent and child to talk about these together, and discussing reasons for child behaviour in the family setting, Ngaripirliga’ajirri aimed to provide support to a parent to be active in at first recognizing, and then responding to the child’s dilemmas: for example, in the cases of Russ or Mack, dilemmas about where the child belongs, or in the case of Marietta, in allowing the mother to formulate the resolve to distance herself from a problematic relationship by providing a period of sheltered, non-confronting interaction between mother and daughter.

The re-development of the program has focused, therefore, on exploration of *active parenting* through discussion of family relationships, social networks of children, and their responses to conflict situations. This implicitly illuminates choices made by parents, or their avoidance of choices through withdrawal. It also focuses on time spent together with children.

If the parent stops attending the program or does not attend at all, then the results for the child may be discouraging. While the program may help the child to adjust to parental withdrawal in the short term, it is unclear whether, once the program ceases to support the child, the effect may in some cases be undermined.

#### ***Coercive and Inconsistent Parenting***

Within extensive family networks, with porous household boundaries, coercive processes may differ from those described in the literature on non-indigenous parents and relatively

isolated small families, depending on the socialization experiences of parents themselves (Arnold et al. 1993). Children may be subject to threats, screaming or shouting; some children may be subject to frequent corporal punishment, although not necessarily only by parents. Coercive interactions may typically include demands, retaliatory non-compliance (which Tiwi refer to in English as “stubborn”, “cranky”, “wild”), threats to break things or nuisance provocation of a sibling, etc. by the child; these are met by avoidance, evasion, or aggressive mood, on the part of a parent.

In response to violence, hostility or withdrawal by a parent, or by other adults in the household, there is a tendency of all to avoid danger situations: children spend hours with peers, trying from time to time to contact a parent or siblings; a spouse may be always at cards or with her own kin. In short, the household may tend to disperse in order to deal with tension. This may in turn lead to intensified coercion: for example, between husband and wife, leaving children exposed to displays of violence while being denied access to direct contact with either parent or both. A number of children in the program have shown a tendency to try to contain the moods of angry fathers, or to steer maternal behaviour, to avoid escalations of conflict between parents. These children may be in effect trying to protect parents from themselves and the family from splitting up. One boy, for example, would accompany his parents to the club in an apparent concern to watch over them and to somehow forestall the possibility of violence between them. They were aware of his concern and it was discussed in the group. Some children are exposed to violence (and drinking and substance abuse) by other adults, such as older siblings or uncles at home, and struggle to retain access to parents in the face of this violence. As indicated, in some cases, this leads to informal adoptions within a family group, whereby the child realigns him- or herself with a parent’s non-drinking sibling, or to a grandparent, in order to deal with the enmeshment of their parent in drinking and violent conflict.

For example, one mother, who still lived with her child, had given up the child to her maternal cousin (mother’s sister’s daughter) who had intervened to protect it when it was only months old. The child appropriately called her “mother”, while somewhat unusually calling her natural mother “aunt”. They all lived in the one household, with the natural mother and daughter in a state of permanent estrangement and all substantial care undertaken by the adoptive “mother”. Both “mother” and “aunt” attended the program for the child, with the natural mother dropping out for the last three to four weeks. During the program, the natural mother noted that her daughter had said something nice to her “for the first time”. She felt happy, but added, “But I still went to the club.” That is, she went to the sports and social club where she was a regular heavy drinker. Her neglect of the child when drinking (particularly early, during the volatile relationship with the girl’s father) had been the reason for the adoptive mother’s intervention to take over care for her daughter. Although the program saw a trend towards more open discussion of the relationships between child, “mother” and “aunt”, there was a seeming consensual acceptance of the system they had developed, given the mother’s fairly clear sense of her inability to take on more responsibility for her daughter than she was able. In general, heavy drinking and excessive marijuana use by parents are almost always linked to an inconsistent and arbitrary pattern of parental response, with periods of withdrawal from

the child and reciprocal estrangement.

Some culturally typical punishments are corporal. They include measures such as putting hot chili sauce in the mouth of a child who swears inappropriately; this is threatened far more often than carried out. Clay was chased by his uncle brandishing a stick, after he, Clay, had hit his grandmother. Another grandmother reported chasing her grandson with a stick, when he infuriated her after persistent disruptiveness. Family tensions sometimes produce distinctive threats of violence towards children aimed at influencing third parties (Robinson 1995). However, in order to comprehend and contextualize these overt gestures of punishment, there is a need to consider the significance of aversive parenting responses in the context of family process.

Ideally, group work attempts to identify the escalation points or tendencies in child-parent interaction (Omer 2001), recognizing that these are often dispersed within contexts of family interaction in which the parent may disclaim or deflect responsibility for action. Withdrawal may be an attempt to terminate a coercive interaction sequence (Patterson 1982). If the parent avoids or withdraws, this may inadvertently reinforce the child's escalation towards destructiveness as the child attempts to gain a response over an increasing distance. The parent may avoid recognition of antecedents of the child's behaviour as something he or she is able to influence, or indeed has already influenced by his or her own action or inaction. The most difficult patterns to identify and to bring into dialogue with a parent or caregiver are not necessarily those directly aggressive-oppositional confrontations, but rather the spiral of avoidance and withdrawal with which a parent meets the child's protests in response to the parent's lack of availability. This may be an interaction between *escalation and retreat* which ends with parent and child moving apart and the child having to re-attach to alternative caregivers (temporarily or semi-permanently). The child's provocativeness often shows, in the words of a Tiwi facilitator, that the child has not yet *given up* on his parent, that he has still *got hope* for something from him or her.

The re-orientation of group work to a family systems approach has opened up the terrain for dialogue with parents about important shapers of parent-child interaction in terms recognizable in Tiwi culture. However, other elements of the treatment strategy warrant further development. There are grounds for pursuing a stronger understanding of consequences of behaviour and the outcomes of punishment and aversive parenting strategies in the Tiwi context, including patterns of positive and negative reinforcement of coercive behaviour within family processes (Patterson 1982). Where the dominant strategies for punishment are withdrawal and avoidance, growling and crankiness interspersed with extremes of shouting and hitting, with few positive interventions, the child's pattern may entail coercive demand and overt and covert aggression followed by flight or withdrawal. It is important to know how these may be recognized and perhaps intercepted through work with parents to strengthen the capacity to initiate change: as, for example, when Russ's mother changed her strategy from resistance to and withdrawal from her son (refusing to live with him and respond to his demands) to the positive strategy of living with him, accepting his demands and tolerating more time with him. A similar process of change was under way with the boy "Cammo", discussed in the

following section. Recognizing these processes and finding ways of bringing them to conversation with parents constitute important foci for further practice.

### *Vigilant Children and Parental Conflict*

Tiwi children in many family situations cope with high levels of conflict: conflict between their parents and between their grandparents, between fathers and other men such as their brothers-in-law, between their own older siblings, or their parents and their siblings. These conflicts frequently escalate to overt, sometimes extreme violence, even death, as in the case of some of the children referred to the program. Suicide threats by parents and older siblings are common, and in a number of cases (at least five children seen in the program), the children have experienced the loss of a father by suicide. It is not unsurprising that children are often anxious and vigilant, worried about their parents, concerned for their survival, or concerned about themselves and who can care for them in case of parental absence or withdrawal. In some cases a child might cling to a parent, in other cases evade parents, perhaps moving between alternative carers, uncertain about where they belong.

In a single term, four of seven referred children had experienced or were experiencing the impact of serious violence. A mother “Anita” reported that her husband had died over a year earlier. He had killed himself after a night of violence towards his spouse. She was now living with a brother. Her daughter and son were both referred to the program: she attended with her daughter, who was anxious, withdrawn, clinging. Her sons were moving between their father’s community and their new home, unsettled. Their mother was uncertain about her strategy for herself and her children – whether to focus on her daughter or her sons, whether she should keep the boys or let them fend for themselves and stay elsewhere - and increasingly showed a desire to talk about her situation. In their current situation, they were exposed to continuing violence: the mother’s brother was stabbed by his partner, who fled. The deceased father’s brother was in the community in flight from expected revenge after his assault on another man. The mother commented that her brother-in-law was influencing her boys with his violent talk and drinking. In general terms, the family’s mourning for a dead father was being played out in a highly unsettled situation which compromised the ability of the mother to respond to her children’s needs and anxieties. She became increasingly interested in discussing how she might talk about her husband’s death with the children. This grew more intense as the program neared termination: after a number of weeks insisting that she and her daughter were close to each other and that things were trouble free, she admitted to “belting” her daughter. She said that her eldest son – now publicly taking his father’s name<sup>13</sup> - would stop her hitting his little sister. In a sense he was taking the place of her missing husband in the family group, despite his wandering between their household and his father’s home community.

A mother (who was also attending the same program with her daughter, “Rachel”) with whom Anita was close, seriously assaulted a woman (who was hospitalized after the attack) and fled first to Darwin and then on to another Tiwi community, for fear of retaliation. Her daughter (attending the program) was left to stay with another couple,

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<sup>13</sup> Tiwi names are taboo, *pukumani*, for a period after a person’s death.

whose son, “Cammo” had also been referred to the program. Rachel spent a great deal of time playing with the little children, minding them when their parents were fighting, but lacking an orientation to older sisters or female peers. This assault reverberated through the children’s group, but the reactions were indirect, taking the form of accounts of the children sticking together, playing by themselves. The children told how Rachel would take the littler ones up to the shop to buy lollies to get out of the way of parents fighting.

Cammo’s mother and father were a stable couple: however, there was some frequent violence by the father towards his non-drinking, working mother. There was also violence between the father and his brother-in-law, both of whom were heavy drinkers. The father had been “flogged” for his treatment of Cammo’s mother by one of her “brothers” (actually the brother of “Rachel’s” mother).

Cammo’s behaviour was characterized by naughtiness, flight and anxiety in the presence of his parents. He angrily asked why his mother (“that mob”) was present in the combined group, and sat as far as possible away from her. She was quick to point to his misbehaviour, his failure to sit up, hold a book correctly, etc. He was suspicious that the group leaders were trying to trap him into a confrontation over his behaviour and that they were on the side of his parents. When there was discussion in the combined group of some themes also broached in the children’s group (rules about swearing etc.), he cried out, “I knew that!” (that is, he knew that we would try to growl at him or get him into trouble with his parents). His father verbally devalued his mother, calling her “hopeless”, and the boy had adopted some of his father’s style. He was afraid of his father, and reacted fearfully and suspiciously whenever he came (for example, to a barbeque held by the team). His mother told frequent stories of his naughtiness (e.g. putting his little brother in danger) and flight, hiding in the bushes, throwing stones at his mother or others who he thought were looking at him and out to punish him. He rejected any attempt to control him, and would escape through his bedroom window at night to go to Rachel’s house and play until all hours. During the combined group sessions his mother expressed considerable frustration and almost compulsively expressed a nagging criticism, unable to say anything positive to him or to respond to his actual communications.

Cammo’s situation was in fact highly responsive to the group work and the opportunities for moderation of tensions which it gave to both parents and child. After three weeks, he actually sat next to his mother and read something with her. During one exchange with his mother, he became angry with her, then verbally acknowledged the silliness of his behaviour, laughing and calling *himself* “stupid” for mistakenly attributing hostility to others, (albeit still caught up in the deprecatory style of talk which emanated from his father). There were signs of interest shown by his father which Cammo reciprocated. Nevertheless, the ongoing tension and frequent violence between his parents pointed to the need for further work outside of the program if these incipient gains were to be consolidated<sup>14</sup>. An important ingredient in this situation, as in many other young Tiwi families, is the focus of the parents on the younger sibling and inability to deal with the

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<sup>14</sup> Unfortunately the potential change was not fully pursued as the program was cut short by a cyclone (grounding travel to the community) combined with other contingencies affecting the team’s capacity to complete the program with follow-up.

demands of an older child.

All of the children in this group were exposed to ongoing violence and instability in their families. Even where parents are concerned about impacts of violence or conflict on their children, they may have limited ability to alter their situations or reduce the children's exposure to these influences. However, it may be important to be able to assist parents to recognize the shapers of the child's behaviour and to avoid some of the confrontations which lead to mutual hostility, criticism and flight.

### **Children's Play, Children's Anxieties**

The exposure of children to family violence and not infrequently to violent death and suicide underscores an important theme in contemporary Tiwi life: the rapid transmission of anxiety-laden ideas through children's play.

A man was stabbed by another person and died before reaching hospital. This death reverberated across the communities. Within a couple of months, in an unambiguous reference to the stabbing, children across all three Tiwi communities were using the phrase: "[stab you] right through *ka* heart!" Parents noted that this phrase was now commonly used between children in play-fights and arguments, referring not only to physical, but also to verbal attack and rejoinder. For example, a nine year-old boy, participating in the program with his mother, was a highly withdrawn child. Despite willingly participating in the group's activity, he barely uttered a few words during the entire program. This silence was not unusual for him in most situations. One evening, he angrily confronted his parents over a perceived failure to attend to him, grabbed a knife and said he would stab his father "right through *ka* heart!" Underlying the anger expressed here was the boy's anxiety about his father, who had heart problems and was to leave the community for an operation.

The highly public nature of conflict in Tiwi society means that children rapidly assimilate the materials of suicide, drinking, ganja-smoking and fighting to the idioms of group play, with its teasing and verbal jousting. The group work with children sometimes carries undercurrents related to these themes, which may arise as tensions in the group. There is frequent discussion of teasing among parents: children's difficulties are often attributed to teasing. While there is no doubt that teasing is prevalent and highly elaborated in Tiwi children's peer group, it is also important to understand why children may be more vulnerable or sensitive to teasing at a given time.

Much teasing between children targets the anxieties of other children, which may have to do with their sensitivity about getting in to trouble with a parent, or sensitivity to being in any way shamed or named in a group. Many of the children most sensitive to teasing are in precarious situations, anxious about parental response, about difficult family situations, coping with the breakup of parents or a new partner for mother or father, fearful of getting into trouble, or of being assaulted by older children, and so on. Where a child feels anxious about rejection by an adult or a parent, precipitate reactions to any slight or teasing or criticism by other children or adults may occur: the reactions may include acting out with a knife, or throwing stones, sometimes followed by anxious flight.

While Tiwi parents have a great deal of knowledge about the undercurrents of play and the anxieties and concerns of their children, these nevertheless represent important points at which the parents can be approached to discuss the anxieties of their children, underlying concerns they may have about parental behaviour or the family situation. In work with the children themselves, the critical thing is to retrieve the children's ability to work on the social skills to enable them to ward off fears of attack or criticism and shame which otherwise lead to escalating rejoinders or to precipitate, even violent responses to perceived provocation. This inevitably means returning to simple interaction scenarios rather than confronting the more complex anxieties underlying the behaviour. These can come together in role plays in which the children (and parents) are encouraged to help each other to develop responses to being naughty, being growled at, or to the bad behaviour of others.

The unavailability of a parent in a current family situation, the parent's withdrawn or erratic behaviour (eg marriage breakup, drinking, smoking or violence, etc.) may lead to acting out by a child, or at least explain why it escalates or appears to emerge at a certain point. Parental unavailability may mean that the child can simply not get to a point where, through parental response, there is some possibility of repair of a trend long established, or a vulnerability founded on earlier experience. This effective parental absence, or compromised availability may mean that the child's ability to find a stable balance within supportive group relationships is impaired.

#### *Dealing with Death and Violence*

Tiwi ceremonial culture is substantially built around elaboration of public responses to death. Mortuary rituals occur frequently and involve large numbers of the community. There are also taboos about speaking of the dead, and the highly public aspect of mourning tends to close off open communication about loss once the official ceremonies are complete. In fact, children's individual responses to death are not always well recognized by parents or others in the family group, and parents do not always know how they should respond.

Children's mourning – or a parent's mourning – need to be identified and appropriately brought into the conversation, at least with the parent. For example, Russ's sadness referred both to his father's death a year or so before, and to the encroaching sense of loss which related to his mother's decision-making. These issues were discussed with the mother, and contributed to her increased readiness to tolerate his behaviour and respond to him. For "Anita" and her three children, emotional reactions to the loss of the key role model, especially for the boys – along with her own uncertainty about herself and her own location in the longer term – were focal issues from the outset.

A year after Anita attended with her daughter, another mother referred her son to the program. She was anxious about him in the aftermath of serious family violence resulting in the stabbing death of one of her siblings by another sibling. The mother reported that the boy showed anxiety when he heard the people next door fighting, frightened that they would stab each other. He anxiously reacted to any tension between his mother and father. However, it was also clear that the mother was highly

anxious about her own reactions. She had lost her temper and cut the responsible sibling with a knife during an altercation not long after the death. Her concern about her son was a means of focusing and bringing her own emotions and anxieties under control. Her partner joined the program for three visits, once standing in for the boy's mother who was absent for work-related reasons. The program clearly found a place in this family's adjustment after traumatic events.

### **Discussion: Change mechanisms in the Tiwi context**

These cases illustrate aspects of parenting and family relationships that come into the group work in both the parents' and combined groups of the program. The program leaders attempt to identify and work with processes that arise within Tiwi families themselves and which affect both parent and child. The development of an appropriate intervention for the Tiwi context has required response to specific themes and issues – including the incidence of serious trauma - in family life, as well as the development of an understanding of typical patterns of interaction between parents and children in complex family settings. A basic understanding or at least some sense of the significance of kinship and relevant cultural practices needs to be reflected in the material and the approach and mediated by group leaders, if parents and children alike are to feel at ease, to become engaged and to be able to give voice to their own issues and concerns within the program.

The shift in the direction of a family systems-based analysis of processes which shape and constrain relations between parents/significant others and children has the advantage of giving ready access to themes and relationships which the parents and children themselves can easily identify and talk about and allows the group work to identify factors in family life which are influences on the child's behaviour. As outlined, this has taken the focus somewhat away from the emphasis on behaviour management plans. These at best can be realized in the form of individualized strategies to encourage parents to plan interaction with the child and to become more assertive in responding either to the child him- or herself or to family influences on the child's behaviour.

#### *Specific Mechanisms, Effects and Motivations*

The mechanisms of change generated by the program might be expected to flow from its multi-group structure:

1. peer group work with the children, the formation of a distinctive group, and the learning of social skills
2. group work with parents by themselves
3. parent-child interaction within the combined group and parental attendance overall
4. the program and all formal and informal activities involving parents, children and the project team, along with acknowledgement by families and teachers, events and prizes, etc.

The factors described in point 4. are presumed to contribute to the motivational pattern established by the program and therefore to its impact: these are not to be dismissed as inessential to this or any similar program. Any intervention must be able to be situated in the specific context of a community through activities and interactions which give it

resonance with people's concerns and understandings, and provide some positive incentives and fun as byproducts of participation. The capacity of program staff to form social relationships, and the acquisition of tacit communicative competence around the issues of everyday family and community life are what sustain a program and enable basic discourse about themes and problems of life to be developed. They make possible the more formal learning, the competence in formulating specific problems which supports the professional treatment. From the standpoint of measurement of the benefits of particular elements of the "treatment" program narrowly defined, some of these influences can make it methodologically difficult to identify the specific effects of the other components. However, they must be taken seriously in any estimation of the true investment of effort required to run a successful intervention. These largely informal processes are necessary underpinnings of the cultural competence (Shonkoff and Phillips 2000; McPhatter and Ganaway 2003) which is essential to the contextualization of a professionally competent intervention program.

#### *Measurement of Parenting and Family Functioning*

Each of the change mechanisms outlined presents challenges for measurement and observation, and there is a need to isolate the effects of each component as part of the evaluation of the treatment outcomes. This has only been possible to a limited degree, given the resources and constraints of the evaluation of Ngaripirliga'ajirri.

The development of behaviour rating instruments for teachers and parents is outlined in Chapter 6. However, not all relevant and desirable change flowing from the program can be measured through observation of child behaviour. It is desirable to have an independent measure of parents' response to the program, its impact on reported styles of interaction with children and on the parents' sense of efficacy in response to child and family issues. The standard parenting measure used for the original Exploring Together program, the "Parenting Scale" (Arnold, O'Leary et al. 1993), was not adopted for use in the Tiwi setting. Rather, a new instrument was developed, drawing to a limited extent on some items from the Parenting Scale, with new items addressing what has been described here as aggressive and passive-avoidant parenting, together with items identifying levels of distress and conflict at home, and items indicating the parents' general sense of wellbeing and efficacy, derived from the General Health Questionnaire, GHQ-12 (Goldberg, 1972). In addition to provision of some assessment of program outcomes, the intention of the parenting questionnaire was to provide an indication of possibilities for future measurement strategies. It has been established that parents' emotional wellbeing may affect parent ratings of child behaviour, with parental depression potentially leading to over-critical reporting of child behaviour (Fergusson, Lynskey et al. 1993). This instrument was in use from term 2, 2003 and has generated limited analyzable data since that time. Results are reported in the Data Archive appendices.

With continued development of the intervention strategy, a clearer and more selective use of specific therapeutic approaches should be developed in conjunction with a better understanding of indigenous parent-child interactions and family patterns. It would be desirable to improve the process of problem identification at the referral stage, in order that strategies can be directed earlier to families according to need. Finally, the development of appropriate measures relating to parent-child interaction and parenting

and parent wellbeing should be continued.

## **5.4 The Recognition of Problems and Accounts of Change: Parents and Teachers**

The case material described above has outlined determinants of change according to observations of the group leaders. In this section, the way teachers and parents account for change is examined with reference to their responses to open-ended questions about changes in children's behaviour during the program.

Comments about changes recorded during administration of the behaviour ratings at the end of each program delivered were not comprehensive in 2002, in part because the early administration of the questionnaire did not systematically emphasize completion of these questions, and in part because, on occasions, the questionnaires were left with teachers to be completed and handed back, leading to a lower rate of response to the open-ended questions about change. Allowing for the variable quality of data, according to qualitative reports (responses to open-ended questions about behaviour change) from teachers and parents:

1. approximately 80% of children showed some decline in problem behaviours at school during and after attendance in the program
2. of these around 60% show marked declines in problem behaviours
3. for around 40% of children these gains were reportedly sustained at six months
4. parents of 60-80% of children reported improved communication with child
5. parents of 50% of children reported some improvement in child behaviour at home
6. *reported* school attendance improved for children at referral to the program, although this is not sustained for all children (n.b. *recorded* attendance could not be measured).

However, in 2003, these questions were more assiduously pursued by interviewers, with change comments elicited for all children in the program. In two terms at Nguiu in 2003, all but one child of a total of fifteen children were assessed by teachers at interview as having changed positively as a result of or after participation in the program. In the case of six children these changes were noted as *marked* improvements in behaviour.

### **Teacher- and Parent-reported Change**

The following section summarizes change comments of teachers and parents after delivery of the program in a single term during 2003 at Nguiu on Bathurst Island. Seven children were selected from those referred to the program for term 3, 2003. There were two girls and five boys. All children were accompanied by their mothers (or stepmothers), except for one girl, whose stepmother did not attend at all during the program, and another boy, whose maternal grandmother attended for him.

#### **Participants**

C158 Grade 3 C (Mother)

M159 Grade 3 C (Grandmother: mother's mother)

C151 Grade 4 R (Mother)  
W150 Grade 5 J (Mother)  
J160 Grade 5 R (Mother's sister: "mother")  
E154 Grade 6 J (Mother)  
J156 Grade 6 E (Mother's sister: "mother")

### **Referral Reasons and Changes Noted by Teachers or Parents.**

#### *C158*

##### *Referral reasons:*

Doesn't come to school without his mother, and won't work without her (she ends up doing all his work for him); poor attendance; humbugging, sometimes provoking conflicts; he was also described as having a tendency to act out (be disruptive, noisy, attention-seeking and/or aggressive) and be defiant, rather than a tendency to act inwards (be shy, withdrawn or passive and/or not involved).

##### *Comments at point of commencement of program.*

###### *Teacher:*

C158 was now coming on his own and staying at school. He has shown a dramatic change of attitude this term. He is eager to please and appears happier. Teacher suggested that anticipation of the program may be one factor at play.

###### *Parent:*

No concerns regarding C158 at that time.

##### *Comments at point of completion of program.*

###### *Teacher:*

C158's attitude to school has improved greatly over the course of the term; his attendance has improved and there is less running away at mid-morning break. He is more enthusiastic and happier while at school. He is making a conscious effort to do the right thing and to follow the good boys and not the naughty ones, and is taking pride in his choices.

###### *Parent:*

She is happy with how C158 is going. She thinks he is the same as before. She thought the program was helpful for her and for her child, however was unable to say how.

#### *M159*

##### *Referral reasons:*

Withdrawn; upset easily and withdraws further. Grandmother has asked about the program, said she is having problems. M159 doesn't ever appear to be happy, is very solemn all of the time. He was described as having a tendency to act inwards (be shy, withdrawn or passive) rather than act out (be disruptive, noisy, attention-seeking, etc.) and be defiant<sup>15</sup>.

##### *Comments at point of commencement of program.*

###### *Teacher:*

C159 seems to be generally much more settled and happier at school. He is starting to smile and laugh. Attendance has improved

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<sup>15</sup> Note that, due to concerns about probable developmental delay, this child was referred for paediatric assessment, but retained in the program

*Parent:*

Throws stones on roof of house to wake them up at night. Leaves early to play with friends and comes home very late at night. Fights with sister

*Comments at point of completion of program.*

*Teacher:*

Still fairly quiet, but participates more often with the group. He doesn't isolate himself from others. More readily gives verbal responses, appears happier and joins in more. Still some learning or developmental difficulties

*Parent:*

A little bit of improvement. Is getting himself up in the morning and going off, and looking after himself a little bit more. Still a little bit behind at school and missing school sometimes.

*C151 ("Clay")*

*Referral reasons:*

Disruptive, distracting to others, humbugs other kids. Back-chats teacher. C151 was also described as having a tendency to act out (be disruptive, noisy, attention-seeking, etc.), rather than a tendency to act inwards (be shy, withdrawn or passive and/or not involved)

*Comments at point of commencement of program:*

*Teacher:*

Always wants one to one attention, disruptive, extreme attention seeking behaviour. Poor attendance. On Teacher rating form, C151 was noted as displaying a number of problem behaviours, including oppositional behaviours, all the time.

*Parent:*

No comments

*Comments at point of completion of program:*

*Teacher:*

Behaviour improved with positive reinforcement. Still needs to be reminded of appropriate behaviour and incentives. Really enjoyed doing the program. Always came to school on program days and attendance overall improved. Does not get as angry when he can't do what he wants. Working harder at school work. Does not argue with teachers as much as before the program.

*Parent:*

Little bit of change, improvement. Starting to help himself, for example, making his own breakfast, doing his own washing, fixing his bike. Before the program he wasn't improving and now he is. The program helped mother to get along with people and to talk more. Mother has managed to sort out a problem with neighbours. She talks more to C151 now.

*W150*

*Referral reasons:*

Lost? Is always forgotten. Won't talk.

*Comments at point of commencement of program:*

*Teacher:*

Acts shy, withdrawn or frightened; looks sad, doesn't show emotion; very quiet and doesn't get the teacher's attention. Would like him to talk up more, be more assertive, take more risks.

*Parent:*

Swears at and hits parent. Has temper tantrums. Stubborn, won't do things when told, fights with brothers and sisters. Talks back to grown-ups. Is always alone and acts shy or frightened. Sulks.

*Comments at point of completion of program:*

*Teacher:*

Improvements noticed: speaking up more, although he can still improve in his confidence in speaking up; seems a little bit happier, smiles more; is more lively, a bit more open, friendlier. Teacher concerned that his hearing is checked on a regular basis. Better with doing what he is told. Sitting still more in class.

*Parent:*

Improvement noticed. His behaviour is getting better. He is starting to help himself. He is better getting ready for school. Is coming home quieter. Thinks the program helped him think about his behaviour. Program helped parent talk more to her child than before. She still worries when he is not listening, when he has trouble hearing and when he is missing school.

*J160*

*Referral reasons:*

(Caregiver referral) He is not doing what he is told. Is always fighting with his brother. Not listening; staying out late; always sulks and cries if growled at or if brother teases him.

*Comments at point of commencement of program:*

*Teacher:*

He needs to control his anger. He is not very good academically and needs to try harder. He argues and fights with other students. Sulks. Is impulsive and has trouble paying attention.

*Parent:*

Wants him to listen; wants him to learn at school and behave for the teacher; wants him to help around the house. J160 fights with brother; yells. Have to growl at him. Sulks.

*Comments at point of completion of program:*

*Teacher:*

Some improvements noticed; he is trying hard at schoolwork. He still needs a lot of support with his work. He has some attentional difficulties and needs to listen more.

*Parent:*

Just a little bit of improvement. Still won't listen concentrate, behave. The program helped a lot. It helped J160 to talk about things. Helped him to know ways to handle feelings. Helped him gain some confidence. The program helped the parents to talk about worries and help each other solve the problems.

*E154*

*Referral reasons:*

Regularly late or absent from school. Daydreams. Acting like older kids. She was also described as having a tendency to act inwards (be shy, withdrawn or passive and/or not involved) rather than a tendency to act out (be disruptive, noisy, attention-seeking and/or aggressive) and be defiant.

*Comments at point of commencement of program.*

*Teacher:*

Misses a lot of school and comes late. Nice natured child. Is always alone. Always looks sad. Won't talk up. Daydreams.

*Parent:*

No real concerns.

*Comments at point of completion of program:*

*Teacher:*

Seems a little happier and more light hearted. Improvements noted on frequency rating forms: still somewhat shy, plays alone, looks sad and daydreams, although somewhat less than before. Improved attendance. Wastes less time during class. Finishes her work more

*Parent:*

Little bit of improvement noticed. She is getting better, but nothing in particular. She is growing up, which is important. The program helped child and parent. It helped talking and spending time together.

*J156*

*Referral reasons:*

Attendance. Academically poor; quiet. She was also described as having a tendency to act inwards (be shy, withdrawn or passive and/or not involved) rather than a tendency to act out (be disruptive, noisy, attention-seeking and/or aggressive) and be defiant.

*Comments at point of commencement of program:*

*Teacher:*

Very poor attendance. Believes poor work will improve with better attendance. Finds it hard to listen, get onto work, and finish work. Doesn't like correction. Looks somewhat sad. Daydreams in class.

*Parent:*

No specific concerns.

*Comments at point of completion of program:*

*Teacher:*

Attendance has improved a lot. Settles more easily to her work. Completes more tasks. Concerned that she keeps attending school.

*Parent:*

No worries.

It is noticeable that some of those parents – of J156, E154 and C158 - who give vague and equivocal assessments of change, were also least aware of any problems at commencement. While their assessments of relatively little change may be accurate, they also point to aspects of the parents' own engagement with the program. J156's young stepmother did not attend the program at all, and at most showed a kind of sisterly interest in J156, rather than a parental one. J156 complained to her about her non-attendance at the final get-together. However, E154's and C158's mothers were both reluctant attenders, who seemed at the same time to express emotional needs to retain contact with the children – needs which may have contributed to the children's gaps in attendance at school. C158 would provide his mother with opportunities to stay home with him when he was sick. He was referred in part for refusing to go to school unless his mother took him. The mother seemed not to express an interest in greater separation and independence when these themes were formulated in discussion. Similarly for E154 and her mother, there was a kind of reciprocated closeness and a reluctance to "open up" in the program. It is significant that for these three families there had been recent deaths, for E154, of her father, and for C158, of an uncle, the boy's father and another uncle having died one to two years earlier. Deaths in all three cases included suicides. The closeness of E145 and C158 with their mothers and the mothers' resistance to separation need to be

understood in this light. J156's situation was perhaps, if anything, potentially more problematic, given the apparent lack of reciprocated closeness to an adult in her case.

In general terms, the situation of some of the withdrawn, unengaged children, often poor attenders at school, seems to point to anxiety about separation, (compounded by responses to loss). Anxiety about separation may be shown by the parent, and reinforce that of the child. These themes need further elaboration. They illustrate how parents' reports of children's behaviour link to themes in the relationship between parent and child, and in turn reflect some common threads between parental engagement with the program and children's attendance at school.

As noted in these comments, teachers generally report improvements in attendance at school for those children whose attendance is poor at referral: all children for whom attendance was a referral issue in terms 2 & 3 in 2003 were reported as having improved attendance, "a lot". For a small number of children, the improvement is reportedly mainly on the day of the program with some increase on other days. Similarly, for those children who show poor engagement and negativity towards schoolwork at referral, teachers report gains in attentiveness, engagement and attitude, and, in some cases, substantial gains in academic performance.

This brief discussion of comments and interview data provided by teachers and parents points to some methodological and substantives issues. Concerning teacher's responses, data were not available to test teachers' reports against recorded school attendance and academic performance. This should be undertaken in any future implementation of the program. The interpretation of material relating to parenting and parents' perceptions of themselves and their children is more complex. Further exploration of behaviour change on the part of parents and children both within the program and at home, is warranted.

### **Accounting for Change**

Teachers – including some Tiwi teachers - approach children with a relatively developed "problematizing" language, and are able to talk about attendance, inattention, disruptiveness, lack of engagement, etc., reasonably fluently. However, this also means that teachers tend to emphasize change and development and value these positively. As a result, teachers' expectations may influence their observations of any changes recorded via questionnaires and interviews. This proposition might be further considered in response to the analyses in chapter 6.

By comparison, parents' views of their children seem at first sight to be more variable and ambiguous than teacher appraisals of student behaviour – at least as understood by the evaluators. In group discussion, some parents seem to resist direct comment on an individual child's behaviour, or seem simply not to be used to doing so, and perhaps lack the terms to communicate to outsiders. Almost all parents speak positively about the program, and many indicate that the behaviour of the child has changed to some extent. Some parents are able to identify specific changes affecting themselves and their children which have occurred during the time of the program, while a significant number cannot do so at least in English, as these issues were discussed in relation to the program. Some

parents continue dialogue with the program staff for some time about their child, demonstrating their continuing interest in dialogue about the child, and conveying the sense that the program contributed positively to ongoing relationships.

Observations made by the parents during and after the program may be influenced by the learning processes of the program itself. This begins with the administration of general questionnaires, followed by the rating forms. These are essentially descriptive and require parents to disaggregate children's behaviour, to assess the presence, frequency or intensity of specific actions. They may help reduce the sense that moral, personal judgements are being made about a child's character and thus lessen a potential source of inhibition. When the rating instruments were introduced systematically in the third pilot of the program, it was noticed that, compared with the first pilots, parents immediately seemed to show greater awareness of the focus on problems and could report on specific aspects of the child's behaviour from the very first session. The instruments certainly assisted the facilitators to be clearer about objectives when talking to parents. Nevertheless, in group discussion, some parents at first struggled to identify distinct characteristics of their child and his or her behaviour, what they liked or what they didn't like about the child, etc. For some parents, often a specific thematic issue of concern needed to be discovered before they are able or willing to talk about the child as an individual.

One father could not make a single statement about his son's childish, attention-seeking behaviour for the first five weeks. In relating material about the child at home, he would always refer to the family as a whole and how it should behave – all go to church, or all go hunting together – at most implying something about his son's place as a child in the family group. By contrast, his wife was quite directly observant and critical about what she did not like about their son's behaviour at home, and seemed to suggest that she wanted him to be more independent. After a number of weeks, the son's apparent unwillingness to follow his big brothers outside the home became a topic. At this, the father focused on a specific concern: his fear that his son might "follow the wrong mob", that is, follow reputedly homosexual young males. At this point the father began to report on his own trips out bush hunting with other men, and related specific accounts of his son's activities, showing a degree of interest in his son's movements and affiliations, although still tending to describe his son in terms of his own ideal. The issue had opened up a specific area of the father's concern about a son approaching puberty.

Changes in a child's conduct cannot always be clearly identified or explained by parents at interview. It is not known to what extent parents' observations of change reflect their own learning during the program and relationships formed through participation; it is not known whether any such effect is more significant than for teachers. However, it is noted in Chapter 6, below, that parent ratings of children's behaviour (see in particular the stage 3 Validation Scales) are highly stable and consistent over time, with high internal consistency.

## 6. Program Effectiveness: Measures, Outcomes and Determinants

### Introduction: Aims and Hypotheses<sup>16</sup>

This analysis evaluates the outcomes of the Program from the methodological perspective of “classical test theory”. Where appropriate, it applies parametric methods to the measurement, analysis and interpretation of program outcomes, expressed in terms of “change” or “gains”. The combination of the three strands of Exploring Together in the Tiwi Study – program delivery, program development and evaluation – presents a unique challenge to the quantitative analyst. However, as will be seen, these challenges can be largely met by a sensitive approach to the data which acknowledges the limitations of classical methods in cross-cultural action research, but which incorporates their descriptive and diagnostic powers into the developmental and evaluative process.

The aims of this section of the Report are:

1. To undertake exploratory statistical analysis of the outcomes from the Exploring Together Program of the Tiwi Life Promotion Evaluation Project.
2. To assess any statistical evidence for behavioural change in light of the quality of the design and instrumentation employed in this aspect of the evaluation.

These aims can therefore be expressed in the form a test of the ‘fit’ of the model implied in the evaluative procedures. Because of the emphasis on evaluation of outcomes, priority is placed on the “prima facie” evidence of a decline in problem behaviours. Any such evidence will then be placed under the scrutiny of “classical test theory”, which will critically examine the quality of the data and of the measures themselves.

These objectives can be operationalised in terms of three main hypotheses:

**Hypothesis I:** *That the instrumentation (scales and inventories) employed in the Exploring Together Program are valid, stable and reliable instruments for assessing and monitoring child/pupil problem behaviours across treatment groups in the Tiwi context.*

**Hypothesis II:** *That the test data generated by the parent, teacher and child inventories employed in the Exploring Together Program will demonstrate that child/pupil exposure to the Program has resulted in a measurable reduction in perceptions of the frequency and significance of problem behaviours.*

**Hypothesis III** *That the patterns of response of parents, children and teachers to the Exploring Together Program will be predictable from a knowledge of their individual and family background characteristics.*

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<sup>16</sup> The analyses in this chapter were the responsibility of Dr Bill Tyler, Adjunct Senior Fellow, School for Social and Policy Research, Charles Darwin University

### **Unique Features of the Tiwi Program**

Aspects of this investigation distinguish it from large-scale evaluations of test instruments and of program effectiveness. This was part of a wider project within an Indigenous community, so that there was not the opportunity or resources for extensive piloting and development of the behavioural inventories. With small numbers of children and parents participating in these trials, classical research design statistical procedures for population inference were not always appropriate, even though they provide an important reference point for method and interpretation. Therefore, for both structural and operational reasons, the analytic strategy must be seen developmental and exploratory rather than definitive. The following discussion of strategic issues of evaluation concentrates on their analytical implications, rather than their theoretical, substantive and policy-related aspects, which are dealt with in other sections of the main report.

This development and application of this strategy falls into the following sections:

Section 1: A brief account of the three stages of scale development and sampling.

Section 2: Development of an evaluative design strategy

Section 3: Measuring Outcomes: Procedures and Results

- a) Critical examination of the evidence under the scrutiny of “classical test theory”, with particular attention to the validity, consistency and stability of the inventories employed (Hypothesis I).
- b) Evidence for “gains”, i.e. for a reduction of the incidence of perceived problem behaviours that may be attributable to participation in the Program (Hypothesis II)
- c) An exploration of predictors and correlates of test scores and program “gains” (Hypothesis III)

Section 4: Summary and Conclusions

## **6.1 Sampling History and Stages of Scale Construction**

The evaluation instruments originally accompanying the Exploring Together Program, included the Achenbach Child Behaviour Checklist, (ACBCL) (Achenbach and Edelbrock 1983), the Depression Anxiety Stress Scale (DASS) (Lovibond and Lovibond 1993), the Parenting Scale (Arnold, O’Leary et al. 1993), the Piers-Harris Children’s Self Concept scale (Piers and Harris 1969) and others.

After pilots conducted with Tiwi respondents, it was found that the ACBCL questionnaires are too long; that a high proportion of questions are concept foreign and/or culturally irrelevant and that the questionnaire structure is such that an adaptation process would be overly demanding. It was further considered that some of the other questionnaires were of value. It was decided not to proceed beyond the replacement of the ACBCL, the Piers-Harris and the Parenting Scale in the Tiwi context. This left the major focus on teacher and parent reports of child behaviour. Thus in late 2001, it was

decided to create a composite behaviour checklist based on a format derived from an instrument developed by Eyberg, and other inventories, including the Beck Youth Inventories (Beck and Beck 2001). The composite instrument consisted of versions for teachers and parent and for children. While the teacher forms were sometimes left with teachers to be completed and returned, the child and parent versions were always administered as a structured interview.

In addition, it was found that there was some need to assess parenting styles, parental anxiety and depression, and measures of parental responses to the program. These constructs could be compared with reports of family composition and functioning and life stress events obtained in the initial parent interviews. An instrument was constructed for the program, drawing on some items relating to anxiety and depression from the General Health Questionnaire (GHQ) and items relating to Tiwi parenting styles based on the case materials developed to that point. This was a preliminary attempt to test certain constructs relating to Tiwi parenting.

### **The Development of a Composite Behaviour Measure**

To assist with program evaluation processes, several Child Behaviour Rating Forms were considered for the program. The developers of Exploring Together in Victoria asked parents and teachers to complete the Achenbach Child Behaviour Checklist (Achenbach 1983; Achenbach and Edelbrock 1983) as well as other Parent Questionnaires before and after participation in the program. Initial pilots with Tiwi persons including members of the Tiwi project team indicated that the key evaluation measure, the ACBCL, was likely to be inappropriate. With 113 items, the ACBCL was considered too burdensome for Tiwi parents and teachers (particularly considering the small number of teachers responsible for a large number of referrals in the Tiwi schools). In addition, many of the items related to behaviours which were not relevant to the Tiwi context. For example: "Please list your child's favorite hobbies, activities and games, other than sports (stamps, dolls, books, piano)". Firstly, children in the Tiwi communities may not have access to toys and activities such as these. Secondly, the concept of a "hobby" is difficult to render in the Tiwi cultural context. The underlying assumptions about what is being measured become suspect even with apparently simple notions like the time spent by the child in active leisure. Finally, the size of the instrument and the complexity of the factorial structure of the ACBCL rendered adaptation for the Tiwi setting impossible.

The Conners' Parent and Teacher Rating Scales for child behaviour (Conners 1997), measures used widely in the study of child psychopathology, were trialled in term four of 2001. The Conners' 80-item Parent Rating Scale and 59-item Teacher Rating Scales were time-consuming to complete, while also lacking face validity in that numerous items were not relevant to the Tiwi culture, for example, "Difficulty doing or completing homework", "Hard to control in malls or while shopping", "Fussy about cleanliness", "Does not get invited over to friend's houses". The Conners 48-item version of the Parent Rating Scale was trialled with a small number of children, and was seen as more suitable, although there remained a number of behaviours/concepts which were difficult to translate into simple English, for example, "Carries a chip on his or her shoulder". Finally, it was judged that the Conners scales contained too many attention-deficit

behaviors, which are difficult to translate into Tiwi English, particularly when the items were attempting to make fine discriminations.

During piloting of the Conners scales however, it was observed that the instrument could identify problems that the parent didn't acknowledge during interview (for example, a parent strongly endorsed behaviours such as stealing, lying, crying and fighting in completing the Conners scale but in interview responses referred only to teasing as a problem behaviour. This difference between interview response and checklist identification of problems is probably not limited to Conners, and should be explored further in comparison of instrument- and interview-derived material generally.

The Eyberg Child Behaviour Checklist, ECBI, and the Sutter-Eyberg Student Behaviour Inventory, SESBI-R (Eyberg and Ross 1978; Eyberg and Pincus 2000), are tools used widely to measure disruptive behaviour problems in children and adolescents. They have proven to be effective as measures of externalizing and attention-related behaviours and oppositional conduct problems. It was considered that there was a particular need to identify withdrawn behaviours, depressed affect and/or low self esteem, based on considerations such as the prevalence of suicide and self-harmful behaviour among Tiwi. Consequently, the Eyberg was used to provide a model for the basic format and a majority of initial items within the Parents' and Teachers' Rating Scales. To develop the focus on withdrawn and/or depressed behaviour, items derived from Beck inventories (Beck and Beck 2001) were incorporated in the composite scale. These were also included in the child version of the scale.

#### **Timelines for Development and Use of Evaluation Measures**

For the purposes of evaluation of outcomes of the program, the same instruments, based on the modifications of SESBI-R and ECBI were used for terms 2 – 4, 2002 and in terms 1 and 2 in 2003; this is referred to as “Stage 1: Original Scales” in the table below. In June 2003, item analysis was conducted based on the data gathered to that point and a further revision undertaken. The data from two further terms, “Stage 2: Revised Scales”, were then analysed and used to develop the instrument for “Stage 3: Validation Scales”. The validation study entailed the administration of the third version twice, in two successive school terms to a randomly selected sample of 49 children from the school populations at Nguiu and Milikapiti.

There were three distinct stages of the quantitative evaluation, each associated with corresponding stages of scale development. Besides the test inventory scores, the data included demographic characteristics of children and families, ethnic identity of teachers and parental involvement with the program. For the first and third stages, data on family characteristics were also gathered, covering risk factors such as the child's home exposure to deaths, drug and substance abuse, mental illness, as well as structural characteristics of family (nucleation) and the household (size and complexity). The final stage, that of validation, was unique here, in that it was conducted with a non-referred, randomly sampled group, for purposes of scale development, without any intervention taking place. Since details of scale construction at the level of item description and reasons for individual item revision/rejection are included in the Appendices within the

Data Archive, this section will provide a brief description of the samples and of those gross features of scale construction which raise psychometric, rather than substantive and theoretical, issues.

The three stages were:

Stage 1: Original Scales ( combined programs, 2002-3)

Stage 2: Revised Scales (one trial, 2003)

Stage 3: Validation Scales (test and retest, 2004)

**Table 4: Stages of delivery, development of measures and data-gathering**

Year/term	2001	2001	2002	2002	2002	2002	2003	2003	2003	2003	2004	2004
<b>Program Delivery</b>	Pilot Nguiu	Pilot Nguiu	Develop material/ protocol	Nguiu	Milikapiti	Nguiu	Gdn Pt (no data)	Nguiu	Nguiu	Milikapiti	Referral	Pilot pre-school
<b>Behaviour ratings</b>	Pilot ACB CL	Pilot Connors	Eyberg: First workshop revision	<b>Stage 1:</b> Eyberg ECBI & SESBI, item analysis & revision in June 2003				<b>Stage 2:</b> Revised Version	Item analysis	<b>Stage 3:</b> Validation Test	Validation Retest	
<b>Parenting Q.</b>												
<b>Parent Interview &amp; consents</b>	Revised for Tiwi Program			As revised							Short version for validation study	

## 6.2 Sample Characteristics

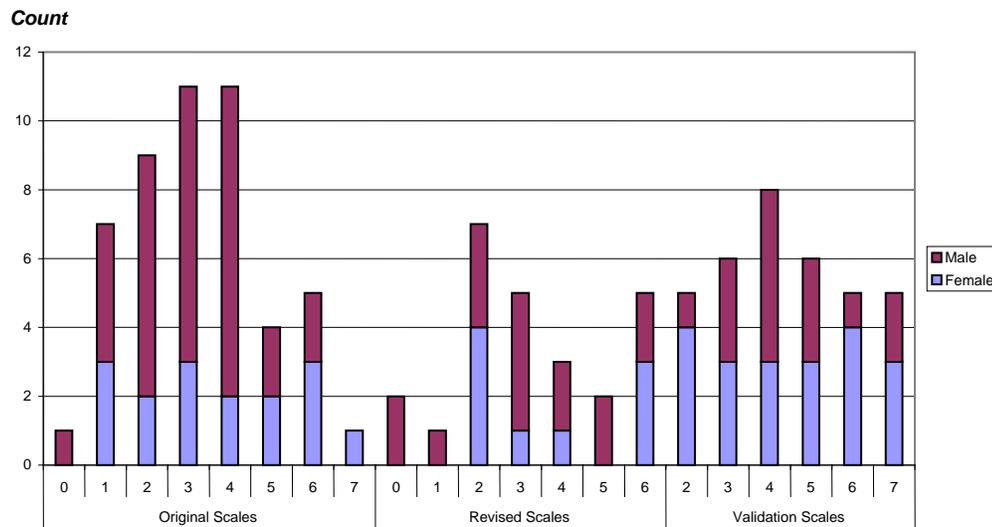
### Stage 1 Participants

There were 71 (70 included in the database) children referred to the program from the start of Term 2, 2000 to the end of Term 2, 2003 (the cut-off date for the current data base entry). These were spread over six program trials and three communities - Nguiu, Milikapiti and Pirlingimpi (see Fig 8 below), with the majority of subjects being provided by Nguiu, the largest community in the islands. The bulk of data to be analysed came from the programs year 2002 trials. Of the 71 participants, 46 participated in the main program, while 25 who received initial referrals were either put on the “waiting list” or had chosen not to proceed, although the test results for 9 in the waiting list were included, both to make up the numbers for test quality purposes, and as a quasi-control group. Qualitative data only are available for a further 26 children: 14 of these participated in two pilots before the current instruments were adopted; while 12 children participated in non-standard variants of the program.

The analysis concentrated on the data generated for a core group of about 40 children (65% male, median age just under 10yrs) for whom complete sets of both pre and post-treatment data were available. These cases were supplemented from inventories completed at the point of referral (replaced by a simplified form from Term 1, 2003) and the reduced sample (27) completed at the 6 months follow-up interviews. Teacher

inventories were jointly completed by Tiwi and non-Tiwi teachers in the majority of cases (31), with 11 completions by Tiwi teachers alone and 7 by non-Tiwi. At the discretion of the interviewer, teacher inventories were occasionally self-administered. Parental participation was widened to include members drawn from the wider kinship group with immediate caring responsibility, including grandparents and other relatives. On some occasions both mother and father of the child participated. In all cases, the attending parent completed the questionnaires, sometimes with the assistance of a spouse. These inclusions represent variations of the unique parent model recommended by the Program Manual, but were seen to be necessary adaptations to the Tiwi context. The fluidity in parent and teacher participation is discussed in more detail in other sections of the Report, though they do have a bearing on the interpretation of the data below.

**Figure 8: Grade and gender of participants by stage of program**



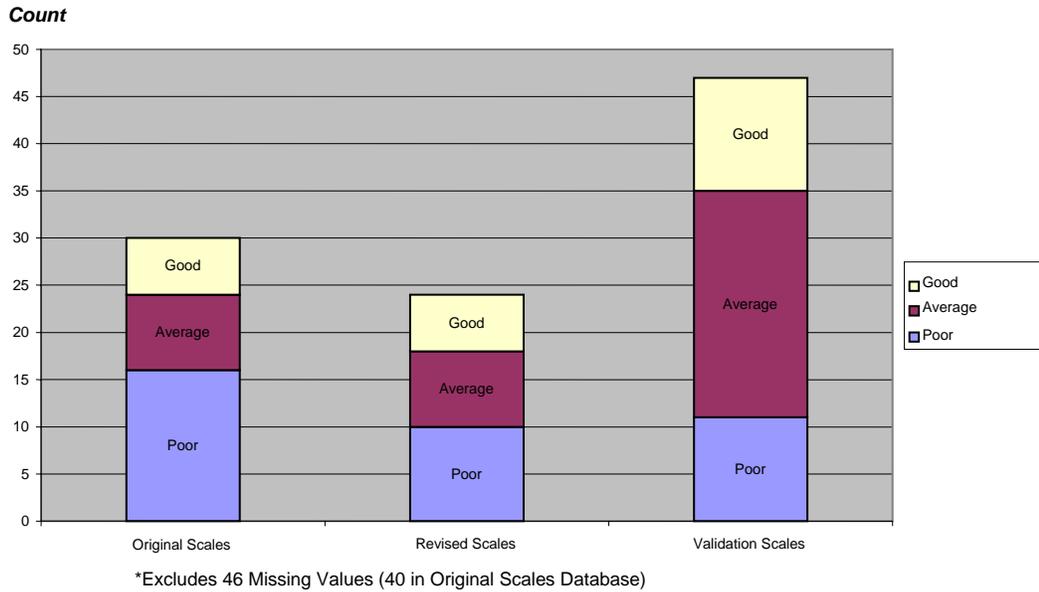
\*Excludes 38 Missing Values for Grade (21 in Original Scale Database and 14 in Validation)

These considerations, together with the volume of the scale data relative to the number of participants, present an inversion of the normal ratio of subjects to variables and severely restrict the basis for multivariate statistical inference, particularly for some scaling and factorial procedures which require large and complex matrix solutions. This restriction is not always debilitating, since valid inferences may still be cautiously drawn when the appropriate procedures are employed. Individual case trajectories and profiles are particularly useful given the small sample size, the intimacy of the community context in which these trials were conducted, and the wealth of qualitative evidence with which these data may be cross-referenced. However, classical (i.e. parametric) methods were applied to assessing the impact of the program, as well as the quality of scales themselves.

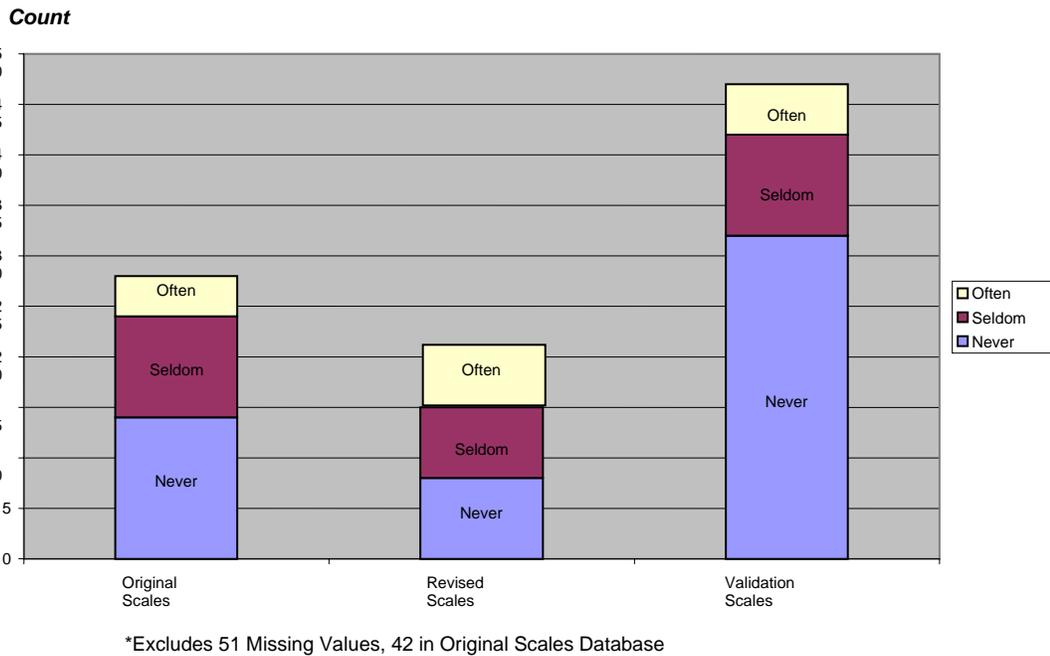
Analysis of the distribution of the characteristics of the program participants in each of the three stages is presented in figs 8, 9 & 10; this allows comparison between the first

two stages, where participants were referred by teachers, and the last, non-referred, random sample.

**Figure 9. Academic Rating of Participants by Stage**



**Figure 10. Parental Contact with School**

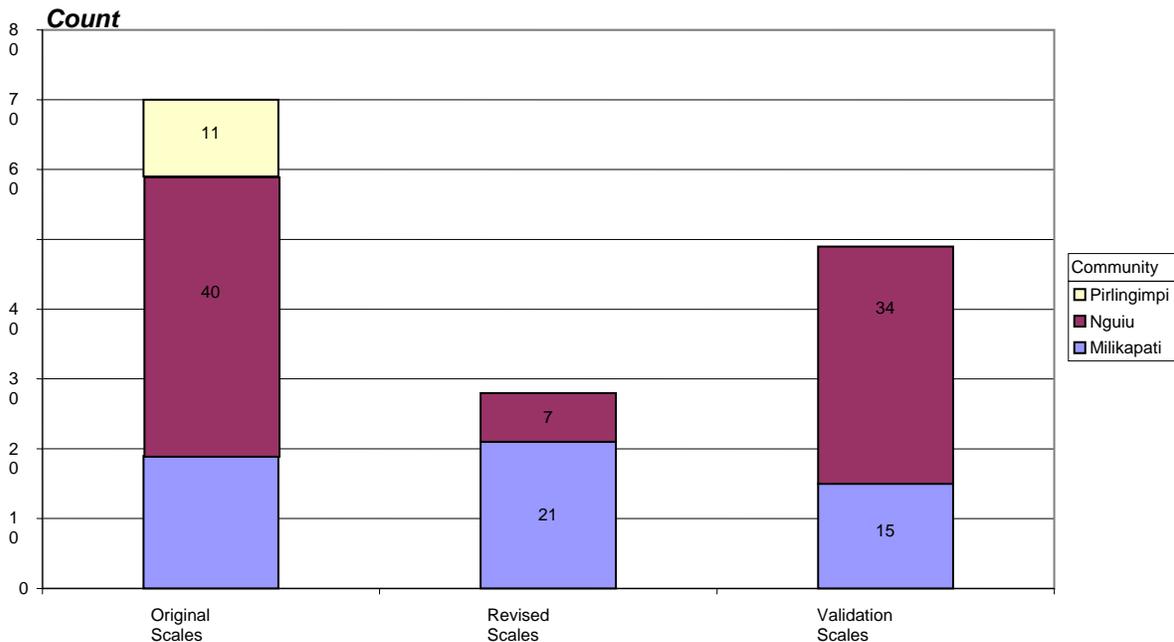


There was an over-representation of males among participants in the program (stages 1 &

2), particularly in the lower and middle school grade levels, as well as those of poor academic background at the pre-program stage. Parental contact with the school appeared to be minimal as well, at this stage.

As for the similar group for the Original Scales, the inclusion of some on the waiting list was both to make up the numbers for test validation and to act as a quasi-control condition for comparison with the pre- and post-treatment period. Cross-tabulations of the characteristics of these two groups indicated no gender bias, but a significant chi-square value ( $p=.012$ ) for grade distribution, with the waiting list children concentrated in the lower grade (Table 5). Merging the two groups therefore yields a more balanced grade/age spread. Figs 8, 9 and 10, as for Stage 1, show a similar over-representation of males and students with poor academic backgrounds, a higher proportion of parents have contacts with the school and, consequently, a lower proportion in the “never” category.

**Figure 11. Sample Distribution by Community**



**Table 5. Stage 2 - Waiting List by School Grade**

<b>Grade</b>	<b>Program</b>	<b>Waiting List</b>	<b>Total</b>
Transition	0	2	2
1	0	1	1
2	2	5	7
3	5	0	5
4	1	2	3
5	2	0	2
6	5	0	5
<b>Total</b>	<b>15</b>	<b>10</b>	<b>25</b>

### **Stage 3 Participants**

As recounted above, the Validation stage was designed purely to test the next stage of instrument development and was not attached to any treatment program. As a consequence, the sample for this study was randomly selected (n=49, 27 female, 22 male) and was therefore far more representative of the total population of Tiwi primary school-age children than those of Stages 1 and 2. Therefore, statistics are more likely to yield better normative estimates of cut-off points, of parental and background influences on test scores, and more normal distributions of item and scale scores. As shown in Fig. 11, roughly two-thirds of this sample was based in the Nguui community, with one third in Milikapiti. This stage was administered in the first and second terms of 2004 and the results were analysed in the second semester of that year.

## **6.3 Scale Development**

### **Stage I Original Scales**

As outlined in more detail above, the two main instruments used in this program were respectively on the Sutter-Eyberg Student Behaviour Inventory-Revised (SESBI-R) and the Eyberg Child Behaviour Inventory (ECBI), the former for teachers and the latter for parents. A Child self-rating scale was formed from a mixture of items from the two Eyberg inventories and several other sources and administered at interview. These three scales were administered in an interview situation at the beginning and end of the nine week program, and after a six month period. Inventory schedules were administered in an identical format and standardised interview procedure throughout the program, with some variation for self-administration by teachers.

The Teacher inventory consisted of 41 items, leaving out 6 of the 38 items of the SESBI-R and adding another 9 based on the Beck Youth Inventories of Emotional and Social Impairment and Conners Parenting Scale. The Parent inventory consisted of 40 items, which directly used 25 of the 36 original ECBI and added 15 new items comprised of 5 from the SESBI-R and 3 from Conners, as well as seven original items for the Tiwi context. The Child inventory was composed of 29 items, a mixture on the Beck inventory

(13 items), the ECBI (9 items), 2 from Conners and six new items developed by the project team. Item responses were standardised to conform to a six point scale indicating frequency of occurrence (never to always), while the Parent and Teacher scales followed the Eyberg model of accompanying each of these frequency of occurrence (intensity) responses with a dichotomous “problem” item (“Is this a problem for you?”).

There are several analytical and substantive issues raised by these inventory genealogies. As a starting point, the inventories have their origins in a range of disparate instruments, covering both affective and behavioural dimensions and have been adapted in many cases to the cultural and linguistic idioms of Tiwi subjects. A cutoff score for referral purposes could therefore not be based on any of the norms developed from the Original Scale inventories (e.g. 131 as recommended for the ECBI intensity raw total score). This is further complicated by the variation of the original Likert scaling. The ECBI and the SESBI-R both use 7 points, while both Conners and Beck use a 4 point scale. A 6 point scale was adopted for the Tiwi inventories. Comparisons between scores based on these scales with norms derived from those of the Original Scales are therefore difficult to draw. Conversely, these investigations do not provide a basis for educing generalisable cutoff points for clinical intervention for other populations, indigenous or non-indigenous.

### **Stage 2 Revised Scales**

At a series of workshops held in May, 2003 at the Centre for North Australian and Asian Research, each item was subjected to intense scrutiny by the project team, for meaning and relevance in the Tiwi context, against a statistical background of their distributional and scaling properties (see also below, Statistical Issues section). The workshop and consultation process resulted in a major revision of the inventories for trialing in Term 3, 2003 and then in a Validation stage (see below), which was carried out purely for test evaluation, with no program offered. In general terms, the items which proved most resilient to cross-cultural applications were those dealing with overt, anti-social or disruptive behaviour (“fights”, “steals”, “interrupts teachers”, “breaks thing when mad”), while those dealing with more diffuse and expressive behaviours (talks to mum and dad about worries, daydreams, cries for things) were much more problematic. Normative behaviour in the Tiwi context (resistance to authority, teasing games) needed also to be distinguished from the problem behaviour identified by the scales. These cross-cultural effects have direct impact on the distributional and correlational properties of the scale items (see Technical Appendix).

### **Stage 3 Validation Scales**

These scales represented the endpoint of the development and refinement process. They were, as seen in the above account, administered to a randomly selected sample in the first two terms of 2004. This stage was purely developmental, there being no referral, no program or treatment and no six-month follow-up. The children’s scale was also dropped, mainly because it had yielded marginal results on basic criteria such as internal consistency (low Cronbach’s alpha values). While most changes in the Teacher and Parent inventories were minor in comparison with the movement to the Revised Scales of Stage II, the items were re-ordered and renumbered. Some items were dropped as well,

such as Item no. 5 on the Revised Parent Rating Form (“Argues with you about the rules at home”). The result was 41 items on the Teacher scale, and 40 on the Parents. These Validation Scales indeed proved to be much easier to administer. They have been released in a modified and carefully controlled form to evaluators of a similar intervention program in the Northern Territory, and have also been adopted by the Let’s Start extension of this program in an early childhood setting.

#### **6.4 Development of the Evaluative Strategy: Experimental Design and Tiwi Context**

The intersection of these design issues – the size and cultural distinctiveness of the sample, the heterogeneity of the scale content and the operational constraints imposed by an action research strategy – would appear to eliminate the possibility of an evaluative design that applies ‘off the shelf’ questionnaires to large normative or “mainstream” samples. Exemplary design models, such as that employed in the first Australian evaluation of the Exploring Together Program carried out in Victoria in the late 1990s (Littlefield, Burke et al. 1988) may seem to be the ideal quantitative evaluative methodology, based around the use of a repeated measures design for comparing pre- and post-treatment means of child behaviour scores. However, in the present context, this classical evaluative design could be better applied as a kind of “ideal type” and incrementally assembled from the examination of its assumptions.

Therefore, a profitable analytic strategy would be to explore the methodological implications produced by the interaction between the distinctive features of the Tiwi programs and the assumptions of the classical pre- and post-treatment evaluative design. The implications suggested by this approach would be to examine the degree to which the data yielded from the Tiwi programs conforms with the assumptions of the classical evaluative model, based on well-established theories of scale construction and probability theory. Specifically, there is no attempt to produce a control group in any of these interventions, although the withdrawal groups (particularly in the Revised Scale Stage) and the different sampling methods do collectively provide some comparative detail on different levels of exposure to the program. The intention here is developmental, rather than experimental, and aims to explore the appropriateness and reliability of the instrumentation provides some basis for observing the patterns of behavioural change which may be attributed to program effects.

The heuristic and exploratory nature of this evaluative design is drawn from the insights of Pawson and Tilley (Pawson and Tilley 2000), who apply scientific realist theory to redefine the experimentalist’s task as one of manipulating the entire experimental system, rather than, as postulated in the classical experimental design, “simply activating an independent variable and watching for its effect (2000:60). This model seems to be particularly appropriate in the case of *Ngaripirliga’ajirri*, which could be seen an active, multi-level “conjectured configuration” (2000:77) of the relationships underpinning the intervention process at some levels, and the capacity of that process at other levels to generate valid meanings relating to process and outcomes. In this case, although the evaluative modality retained a modified psychometric component based loosely on a time

series design, it also employed a range of in-depth case studies, participant observations and community-based consultations and interviews. The benefits of this modality are reaped, therefore, not by denying context (or assuming that it can be neutralized by randomized experimental designs), but rather by incorporating it flexibly within a culturally and professionally competent intervention program.

### **Measuring Outcomes: Developing a Statistical Procedure**

The two directions for investigation indicated by Hypotheses I & II are deeply interconnected in sometimes contradictory ways. On the one hand, there is a convergence of direction, in that, unless the instrumentation can be shown to produce valid, stable and reliable results, little credibility can be placed in the data that they generate. On the other hand, tests which show very high levels of internal consistency and stability may prove to be insensitive to the subtle changes in behaviour produced by the program and merely reflect the purely formal and methodological goals of test construction. This tension between the two directions suggested by these hypotheses should therefore inform the evaluative strategy. The need for flexibility in both aspects is accentuated by the fact that this program aimed at development of instrumentation while effecting behavioural change. Of initial concern are the issues raised by the quality of the instrumentation, notably:

1. The shape of the distributions of scale scores (items and aggregate scores)
2. The internal consistency of the scale inventories
3. The stability of scales and their subscales across the program

Fortunately, the methodological basis for this kind of analysis has already been set out by Burns and his associates for both the Sutter-Eyberg Student Behaviour Inventory, SESBI, (Burns, Walsh et al. 1995) and more recently for the parent behaviour inventory, ECBI, (Burns and Patterson 2000). Extensive application and analysis with both scales has also been carried out over the past decade in the United States on the psychometric and psychological properties of the scales in a range of sub-populations and school situations. The strategy adopted by Burns et al for the teacher inventory is most relevant for the definition and relevance of stability. These researchers identify four main types of stability:

1. **Absolute stability**, which refers to the “average magnitude that scores of groups of individuals change across time”. An example of this property might be the chart (Fig. 14) showing a downward trend in the mean scores intensity scores for the teacher inventory.
2. **Relative stability**, defined as the “degree to which scores maintain their relative position in the distribution of scores over time”. This is usually given by a test-retest correlation coefficient. As an example in the present case, this could be demonstrated by the value of correlation between pre- and post- treatment test scores.
3. **Structural stability**, which may be defined as the degree which individual items maintain their correlation with the total score of a scale or factor across time. In operational terms, Burns et al. determine the values of this property by an index called the coefficient of congruence (Gorsuch, 1974), which estimates the

similarity between the factor loadings on each of the four principal components of the SESBI inventory at two points of observation. This coefficient takes into account both the pattern and the degree of correlation between each of the inventory items and its relevant factor.

4. **Individual stability**, which refers to the amount of variation found in individual scores across time. This is a combination of relative and absolute stability taken down to the level of the individual. Measures of this property could, for example, be based on the magnitude of increase or decrease in composite scores for individuals or identifiable groups (e.g. males or females) across observations or time. This measure is of particular interest in such a small sample and could be the basis of cross-reference with the qualitative material on child progress.

Building on this basis, it is possible to devise a hierarchy of stages for evaluating this property of the scales, one level satisfying the conditions for the next. Starting from the top of this hierarchy, the chain of stability conditions could be expressed in terms of logical precedence as: individual – absolute – relative – structural, with the last being the kind of corner-stone. In other words, a comparison of the scores of a particular individual at two points in time can be meaningful only if account is taken of: (a) the changes, both relative and absolute, of the scores of other members of the group and (b) the pattern of associations between and within the units of behaviour (items or clusters of items) within the composition of the total score. In the present exercise, the condition of structural stability, (b), underpins the interpretation relative stability, (a), and will therefore be the primary focus of attention.

The significance of any observed difference between the means of scores for a particular rater across any two points in time is to then be interpreted first in the light of the normality of the distribution of the component scales, and secondly the significance of the size of their observed differences (whether “gains” or “losses”. Because this effect is inversely related to the value of the correlation between the test scores (relative stability or test-retest reliability), this value must be taken into account in its calculation. It should also be noted that the maximum value of this correlation is determined in turn by the geometric mean of the product of the measures of internal consistency (Cronbach’s alpha for each scale)<sup>17</sup>. While these are considerations relating to scale *reliability*, it must also be remembered that the *validity* of the rating scale is affected by other scale properties, such as the correlations (structural stability) across two points in time of their principal component scores, extracted from the total inventory (in this case by Varimax rotation, specifying four factors or components). All of these values (mean item scores, correlations between scores and their observed differences) are also seen to be influenced by a number of covariate or background variables (gender, school grade, family factors etc), which may affect the outcomes of the intervention.

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<sup>17</sup> Test-retest correlation values are affected by the internal consistency of individual tests and may be corrected upwards for attenuation. This correction was not performed in these analyses, in order to better represent the actual data. There was also no attempt to explore or correct the phenomenon of the “regression to the mean”. These operational choices were consistent with the methodologies employed in similar evaluations in this area.

In operational terms, this testing strategy yields eight main statistical measures (see also Technical Appendix for further explanation of these indices):

#### Hypothesis I – Instrumentation Issues, Statistics 1-3

1. Tests of the normality of the distributions of mean item scores for each pair
2. Measure of internal consistency (Cronbach “alpha” value) for each test.
3. Measure of congruence (correlations) among pre and post factor scores for each observation.

#### Hypothesis II – Program Outcomes, Statistics 4-6

4. ‘T’-tests: tests of significance of difference between means of item scores for each rating scale (paired pre-post comparisons) for intensity and Problem Scales
5. Correlation coefficient (Pearson’s ‘r’) of pre- and post- scores as measure of “relative stability”
6. Cohen’s ‘d’ measure of *effect size* of these paired comparisons (reduced by value of ‘r’<sup>18</sup>)

#### Hypothesis III – Background Influences (Covariates), Statistics 7 & 8

7. Estimates (regression analysis) of selected covariates’ effects on the “gains” observed for each comparison pair as identified by t-test of mean difference.
8. Estimates (one-way analysis of variance, correlational analysis) of the predictive power of covariates on the individual mean item scale scores.

The following section will report in turn the results of the analyses yielded by the eight statistical tests just enumerated. Each subsection will explore in turn each of the three hypotheses as set out in Section I above, applied to each of the three stages of scale and program evaluation. Firstly, we will look at the quality (consistency, validity and reliability) of the instruments, secondly at the evidence for perceived behavioural changes or “gains” that may be attributable to the program, and finally, at the influence of covariate factors such as gender, age, and parental variables on both individual and group scale scores and on the gains or losses. The first of the statistical investigations will be the description of the shape of the distribution of scale scores. In this case, the critical measure is the Intensity Scale mean item score average on a k-3 minimum of responses for inclusion, where k is the maximum number of items of any one inventory.

## 6.5 Hypothesis I - Instrumentation

### Distribution of Scale Scores (Statistic 1)

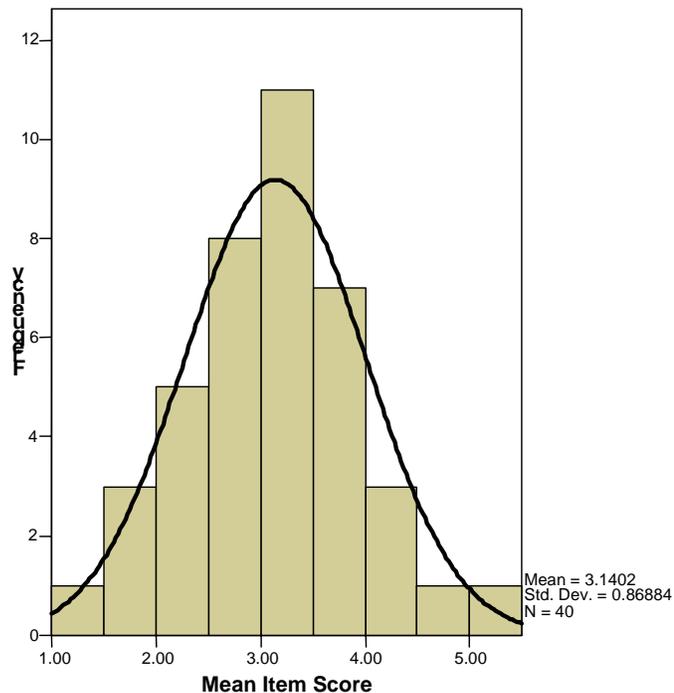
For the sake of efficiency, the distributional properties of all scales are compared in Table 6. Because the differences in means are discussed in detail below, the most important indices here are those of skewedness and kurtosis (see Technical Appendix) and their standard errors. The former is a measure of the symmetrical properties of the distribution,

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<sup>18</sup> The value of Cohen’s d is inversely related to the correlation between measures. For this reason, the report of test-retest correlations were included in this section. The correct formula (not always applied in evaluation studies) for estimating effect size from the value of “t” is therefore  $d = t_c [2(1-r)/n]^{0.5}$  (Dunlap et al., 1996: 171)

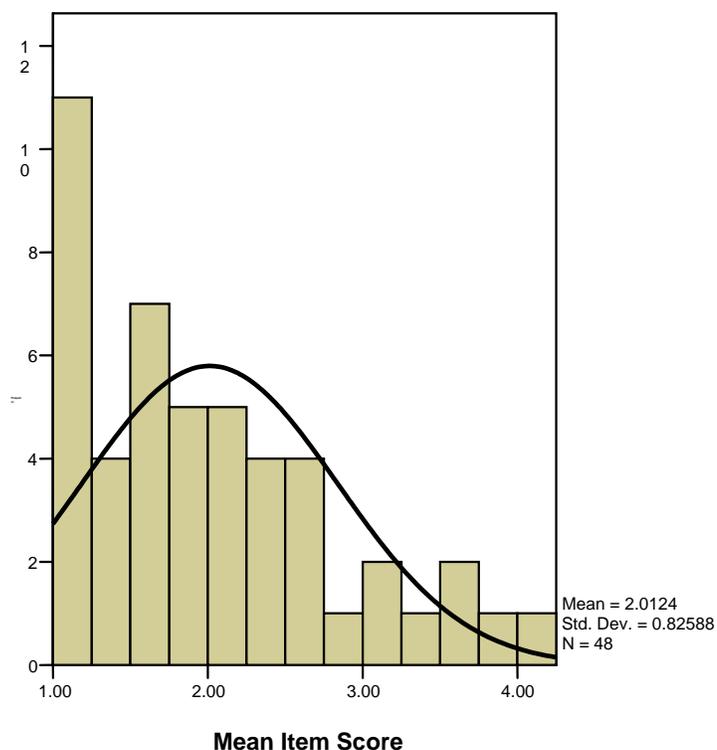
with a positive value indicating a clustering of scores over to the low score side, and a negative value a tendency towards clumping towards higher scores. Kurtosis on the other hand indicates a tendency of scores to be either grouped together around the mean (exhibiting leptokurtosis, or positive values), or else to be flattened out (exhibiting platykurtosis, or negative values). Together these two measures indicate the extent to which the underlying distribution is normal, as assumed by “classical” test theory. Though analytical techniques are generally robust to violations of this assumption, the degree and nature of any violation must be taken into account, particularly if either of these distributional measures exceeds twice its standard error, since this will indicate extremes of asymmetry, or of “peakedness-flatness”. In these cases, the significance values of parametric tests (e.g. for testing the difference between means) may be under- or over-estimated, leading to the high probability of an inaccurate and misleading inference.

**Figure 12. Distributional Properties, Teacher Intensity Scale, Original Scales**



A comparison of the indices of skewedness and kurtosis for the three scales (Table 6) indicates that the greatest departure from normality of distribution is found in the Validation Scales. Here a large proportion of the scales, both Intensity and Problems, Teacher and Parent, tend to show both high levels of positive skewedness (allowing for the negative scoring of the Problem Scales) and high kurtosis, indicating the low incidence of problem behaviours among this randomly selected sample. The only serious deviation for the first two stages, based on referred samples, by contrast, was the for the Child pre program scores. This scale was later abandoned for poor internal consistency in any case.

**Figure 13. Distributional Properties, Teacher Intensity Scale, Validation Scales**



This variability in distributional properties across the scores for the referred and non-referred sample is rather a remarkable finding, since it suggests that these scales, as distinct from the inventories from which they were based, work best to discriminate among individual children who are already referred to the program, rather than among the general population. If this is true, it would mean that the uses of these scales for diagnostic purposes, i.e. for providing a cutoff point within a normally distributed variable (the incidence of problem behaviours), may not be appropriate, since it would fail to distinguish the fine shades of borderline cases before it reached the extremes. On the other hand, within an already-referred group, these inventories may therefore be particularly useful for evaluative purposes, since they would be more sensitive to program effects. The contrast between these two distributions is graphically demonstrated above by the histograms of the pre-program Teacher Intensity mean item scores. Whereas the referred sample follows the normal bell-shaped distribution very closely, that for the non-referred sample shows, as one might expect, a very strong positive skew.

The very small listwise ‘n’ for the Original Scale data (Stage I) is disappointing, but is mainly due to the number of programs delivered and to the variability of attendance and data collection within the early stages of the project. The Validation Scales, by contrast, based on a single large sample, produced quite a respectable listwise figure of roughly 70 per cent.

**Table 6. Distribution Characteristics, all Scales**

\*Skewedness and Kurtosis values greater than 1.5 times their standard errors are shown in bold

<b>Descriptive Statistics - Original Scales</b>								
<b>Scale or Inventory</b>		<b>Group Mean</b>		<b>Std. Dev.</b>	<b>Skewedness</b>		<b>Kurtosis</b>	
		<b>Statistic</b>	<b>Std. Error</b>	<b>Statistic</b>	<b>Statistic</b>	<b>Std. Error</b>	<b>Statistic</b>	<b>Std. Error</b>
Teacher referral intensity	46	3.5302	0.1298	0.88047	-0.005	0.35	0.07	0.688
Teacher pre intensity	40	3.1402	0.1374	0.86884	-0.052	0.374	-0.277	0.733
Teacher post intensity	40	3.1009	0.1512	0.95647	0.491	0.374	-0.107	0.733
Teacher 6months intensity	27	2.4269	0.1776	0.92277	0.132	0.448	-1.305	0.872
Parent pre intensity	45	3.3303	0.12048	0.80818	-0.29	0.354	-0.381	0.695
Parent post intensity	40	3.2034	0.13203	0.83502	-0.3	0.374	-0.079	0.733
Parent 6months intensity	29	2.9863	0.15176	0.81723	-0.286	0.434	-0.379	0.845
Teacher referral problem	19	1.6263	0.044	0.19181	0.3	0.524	-0.823	1.014
Teacher pre problem	29	1.6524	0.0409	0.21997	-0.64	0.434	-0.13	0.845
Teacher post problem	31	1.6935	0.05	0.27852	-0.835	0.421	-0.469	0.821
Teacher 6months problem	26	1.7848	0.03903	0.19903	-0.445	0.456	-1.1	0.887
Parent pre problem	39	1.6682	0.03252	0.20307	-0.283	0.378	-0.557	0.741
Parent post problem	39	1.6386	0.0384	0.23953	0.048	0.378	-0.993	0.741
Parent 6months problem	28	1.7309	0.04836	0.25591	-0.422	0.441	-0.512	0.858
Child pre	44	2.3643	0.0873	0.57885	0.697	0.357	0.354	0.702
Child post	40	2.7226	0.0999	0.63151	0.482	0.374	0.005	0.733
Child 6 months	30	2.56342	0.1019	0.558298	0.534	0.427	-0.569	0.833
Valid N (listwise)	1							
<b>Descriptive Statistics- Revised Scales</b>								
Teacher pre intensity	24	2.6237	0.184	0.90121	0.401	0.472	-0.675	0.918
Teacher post intensity	23	2.4648	0.2245	1.07649	0.264	0.481	-1.082	0.935
Parent pre intensity	26	3.339	0.1708	0.87102	-0.006	0.456	-1.205	0.887
Parent post intensity	26	2.9552	0.1786	0.91051	-0.104	0.456	-0.81	0.887
Child pre	19	2.3447	0.1897	0.82703	0.57	0.524	-0.869	1.014
Child post	22	2.276	0.1367	0.64103	0.657	0.491	0.892	0.953
Teacher pre problem	23	1.6985	0.0529	0.25377	-1.131	0.481	1.337	0.935
Teacher post problem	23	1.708	0.062	0.29744	-0.749	0.481	-0.262	0.935
Parent pre problem	25	1.6177	0.0431	0.21572	0.355	0.464	-0.694	0.902
Parent post problem	25	1.6757	0.0443	0.22141	-0.174	0.464	-0.938	0.902
Valid N (listwise)	12							
<b>Descriptive Statistics- Validation Scales</b>								
Teacher pre intensity	48	2.0124	0.1192	0.82588	0.808	0.343	-0.14	0.674
Teacher post intensity	48	1.8363	0.1207	0.83601	1.611	0.343	3.365	0.674
Parent pre intensity	45	2.7434	0.1217	0.81615	0.034	0.354	-0.13	0.695
Parent post intensity	49	2.7593	0.1076	0.7532	0.159	0.34	-0.439	0.668
Teacher pre problem	47	1.8718	0.0267	0.18334	-1.717	0.347	2.468	0.681
Teacher post problem	40	1.9204	0.0238	0.15051	-2.462	0.374	6.352	0.733
Parent pre problem	49	1.7958	0.0279	0.19537	-1.086	0.34	0.619	0.668
Parent post problem	49	1.7798	0.029	0.20284	-0.895	0.34	0.072	0.668
Valid N (listwise)	37							

### Scale Consistency: Cronbach's Alpha Values (Statistic 2)

The very normal, bell-shaped distribution of the scores for the Original Scales of which the “pre-program” inventory was a representative sample (Figs 7 & 8) suggest good psychometric properties, with concomitant high values for measures of internal consistency. Indeed, this proves to be the case, since, despite their hybrid genealogies, these scales, with few exceptions, yield quite acceptable values of Cronbach's “alpha” indices, the conventional and quite rigorous measure of internal consistency.

Table 7. Cronbach's Alpha Values, all Scales

<i>Internal Consistency: Cronbach's "Alpha" Values All Scales</i>			
<i>Rater and Scale Type</i>	<i>Stage of Scale Development</i>		
	<i>Original</i>	<i>Revised</i>	<i>Validation</i>
<b>Intensity Scales</b>			
Teacher referral intensity	0.93		
Teacher pre intensity	0.93	0.95	0.96
Teacher post intensity	0.95	0.97	0.97
Teacher 6months intensity	0.95		
Parent pre intensity	0.91	0.92	0.90
Parent post intensity	0.92	0.92	0.89
Parent 6 months intensity	0.91		
Child pre (intensity)	0.70	0.89	
Child post (intensity)	0.73	0.79	
Child 6 months (intensity)	0.65		
<b>Problem Scales</b>			
Teacher referral problem	0.86		
Teacher pre problem	0.90	0.92	0.95
Teacher post problem	0.96	0.95	0.96
Teacher 6 months problem	0.92		
Parent pre problem	0.87	0.89	0.84
Parent post problem	0.94	0.92	0.91
Parent 6 months problem	0.91		

Across the program stages, the Teacher and Parent Intensity Scales yield values of .9 (or just under) and above, a sign that the scale is sampling from a coherent set of behaviours, whatever their substantive content (see below for subscale stability). The Child scale, which was abandoned in the Validation stage, is the only exception here, though this rather experimental instrument (it has no precedents in the Eyberg or Connors inventories) reaches acceptable values of internal consistency (i.e. 0.7 and above) for four out of five “test events” (Cronbach 1951; Santos 1999).

The Problem Scales are more difficult to evaluate than the Intensity Scales, since they rely on a dichotomous scoring (i.e. Yes=1 No =2) which normally yields an

underestimate of the underlying Pearson correlation (and was thereby not included in the Principal Component Analysis reported below). However, even in this case, the values were consistently high and all well within an acceptable range, particularly for the Teacher inventories.

Overall, then, the analysis provides a good indication that the scales sample from a similar field of problem behaviours, and that they indeed represent instruments capable of measuring program effectiveness.

### **Exploring Construct Validity: Congruence among Component Scores (Statistic 3)**

Although the scales, in general, exhibit high measures of internal consistency, it is also important to test whether their internal structures are congruent. While it may be useful to know, for example, that two bowls contain the same number of items of fruit, it is also essential to know whether they contain the same “mix” or proportions of fruit of the same variety e.g. the ratio of bananas to apples. In this case, it might be the ratio of ‘externalising’ or ‘internalising’ behaviours that is typical of a distribution, which may vary, even when based on the same group of individual cases and even when total scores may correlate highly. This is a difficult area to investigate with these small samples, since it involves the use of factor or component analysis, which normally requires samples of at least 200 cases. The high number of items in these scales (which is often as great as the number of cases) also limits the type of analysis that is appropriate, since, this is another restriction on the degrees of freedom for estimating the parameters yielded by multivariate analysis. The excursion here into factor and component analysis is therefore undertaken with many reservations and with some caution as to the validity of any inferences that may be drawn. Even with the established literature on the Eyberg-type inventories, this is an area of some debate and controversy, particularly for the ECBI or parent-rater inventory (Eyberg and Colvin 1994). Results derived from these studies are therefore provisional and exploratory.

The Principal Component Analysis of Intensity Scale scores follows closely the methodology of Burns, Walsh and Owen (1995) for examining the structural stability of the Sutter-Eyberg Student Behaviour Inventory (SESBI). This employs a Varimax rotation, with a specification of four main components extracted from correlation matrices of individual items. These results, showing the pattern of factor loadings (correlations between items and the underlying four components), are far too numerous and complex to be included in this section of the Report. Because of the complexity and the size of representation of the factor relationships across all three stages, the reader is referred to the Data Archive, which includes the complete matrix of inter-correlations for all scales.

The most basic question is whether the scales exhibit structural stability in their factorial solutions. In other words, does the same inventory yield a similar pattern of factor loadings (item-component correlations) across two points in time? The results of factor analysis are therefore a more precise measure of the internal structural stability of a scale than the rank order of the item-total correlations. Not only do they provide a basis for confirming the underlying dimensions of a scale, they also give us a detailed picture of

the way that each item, as mediated by that dimension, contributes to a total score.

There are two main methods of comparing the patterns of factorial loadings between two sets of scale scores of the same type observed at two points in time. The more qualitative approach is what might be called the traditional method of confirmatory factor analysis whereby the different patterns are simply compared descriptively. The other method is more quantitative, and yields a measure known as the coefficient of congruence (Gorsuch 1974; Burns, Walsh et al. 1995). This method is illustrated for selected pairs of the Original Teacher scales, which appear to have the highest level of factor congruence of all the data sets. The coefficient of congruence employs a principle similar to the Pearson correlation coefficient, being a ratio of the sum of the cross-products of the paired loadings on the two factors to be compared, divided by the maximum deviation - the square root of the product of the two sums of the squared loadings. While the coefficient of congruence will tell us whether the factors loadings are similar, independent of their underlying construct validity, it is still important to refer to the traditional confirmatory method which will tell us whether the degree to which the pattern of loading makes sense in terms of some theoretical principle, such as the internalising vs externalising distinction or the various dimensions identified by Burns *et al.* in their analyses of the ECBI and the SESBI. To illustrate this method, the results of the congruency analysis for Teacher scale scores of Stage I are shown in Table 10, along with the correlations of the factor scores.

**Table 8. Relative and Structural Stability**

<i>Relative and Structural Stability Indices: Component Pairs</i>			
<i>Original Teacher Intensity Scales</i>			
<i>Scale Pairs</i>	<i>Component Pairs</i>	<i>Correlation*</i>	<i>Coeff. of Congruency</i>
(Factor Scores)			
Pre- and Post	First & First	<b>0.646</b>	<b>0.89</b>
	Second & Second	<b>0.804</b>	<b>0.86</b>
	Third & Third	<b>0.606</b>	0.34
Referral and Pre-	First & Second	<b>0.623</b>	0.29
Referral and Post-	First & Second	<b>0.667</b>	0.09
* all correlations are significant at the .01 level			

Do the same types of items cluster on the factors that have higher levels of inter-correlation? To answer this question it is necessary to consult the actual pattern of factor loadings (and *beta* weights) for the items that contribute to each factor, as reported in the Home Page for Original Scales in the Archive. For the first component pair, there appeared to be a strong representation of items of overt aggression towards others, as well as a sprinkling of items of emotional – oppositional and disruptive behaviour (cf Burns et. al., 1995: 456). The second factor or component appeared, however, to be

loaded heavily by items which tend to indicate depressive behaviour. This component picks up as well several introduced items such as “misses school”, “acts withdrawn” and “spends time alone” and gives them a similar substantive positioning. The third component, though not satisfying a congruency criterion, seems to be very close to the Eyberg-Burns third factor, “Attentional Difficulties” (Burns, Walsh et al. 1995). Because of its strong construct validity (and its high test-retest coefficient), it may be possible to use paired comparisons factor scores on these components for evaluative purposes, though it should be applied cautiously, for the reasons listed above. It must be remembered as well that component scores are standardised and are therefore not as useful as t-tests or within-subjects analysis of variance for estimating the absolute levels of program effectiveness.

If only exploratory at this stage, this *principal component analysis* clearly indicates the independence of the two measures of stability (relative and structural). This independence is well represented in the lack of correspondence between the two columns of indices, where it appears that we can have declining levels of congruence while maintaining high levels of inter-test correlation. In general, however, the structural stability of the data sets as indicated by the strength of correlations between component scores is not high given the low percentage of significant correlations. This may be the result of the small sample sizes, but it may also be a function of the heterogeneity of the sub-scales themselves, based as they are on items from a variety of other inventories and reworked over the stages of revision. Only further analysis will produce clearer patterns on which the interpretation of subscale congruence may be based. At this stage, it must be concluded that, apart from perhaps in the case of the three factors extracted from the pre and post scores of the Original Teacher scale, it would be safer to rely at this stage on total scores for evaluative purposes.

## **6.6 Hypothesis II - Measuring Program Gains**

### **Testing for Behavioural Change (Statistics 4, 5 and 6)**

In the preceding section, we sought to take into account a number of important issues which lie behind the seductions of a one-variable chart: principally in the way these inventories were administered, how an average item score is derived, and the possible changes in both sample composition and pattern of response over the course of the program and the follow-up. The exploration of these methodological issues was an important step in evaluating the instruments themselves (Hypothesis I) before making conclusive inferences as to the extent of behavioural change (Hypothesis II). We come then to estimate the significance and size of the perceived changes across the four major observation points of each stage, beginning with the results from the Original Intensity Scales (Fig. 14 & Table 9).

The figures below (Figs 14 & 15) are intended to be merely exploratory in that they are not based on paired comparisons that would allow for valid statistical testing (Table 9 below). They do indicate, however appreciable reductions in mean item scores of perceived problem behaviours for teacher raters, as well as for some apparent gains for parent raters, particularly at the six month follow-up. Fig. 14 shows the mean score

response to the Teacher inventory, as it was administered at four points within this stage of the Program. This chart shows a clear trend of decline in the mean response of teachers' perception of the frequency of the forty-one problem behaviours (the lower the score, the lower the frequency) in the sample group of forty-odd pupils who went through the program to post-test (with 27 captured in the 6 month follow-up).

**Figure 14. Original Scales Teacher Rater Mean Scores, Intensity Items**

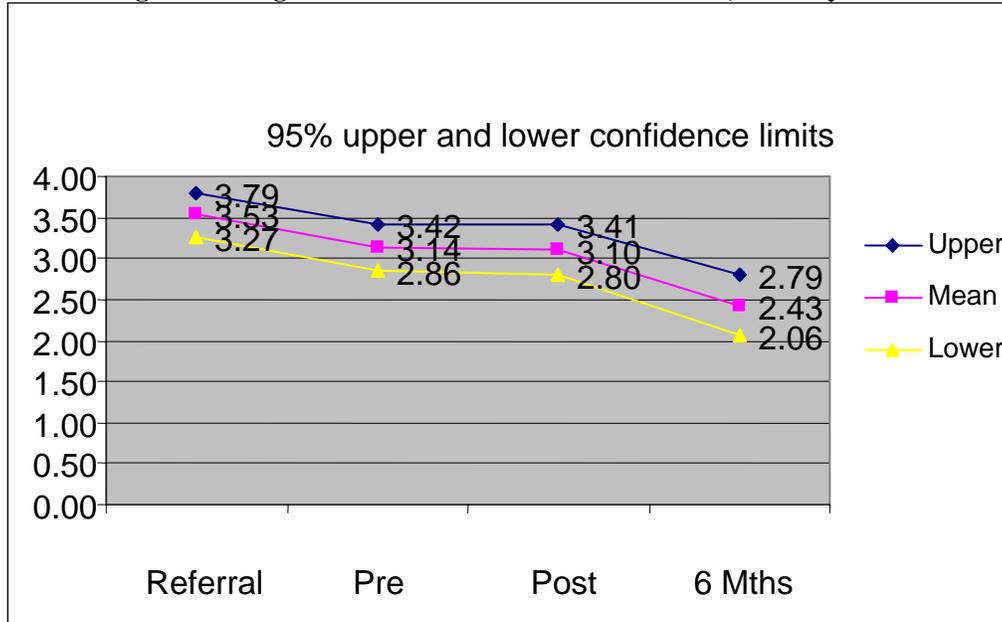
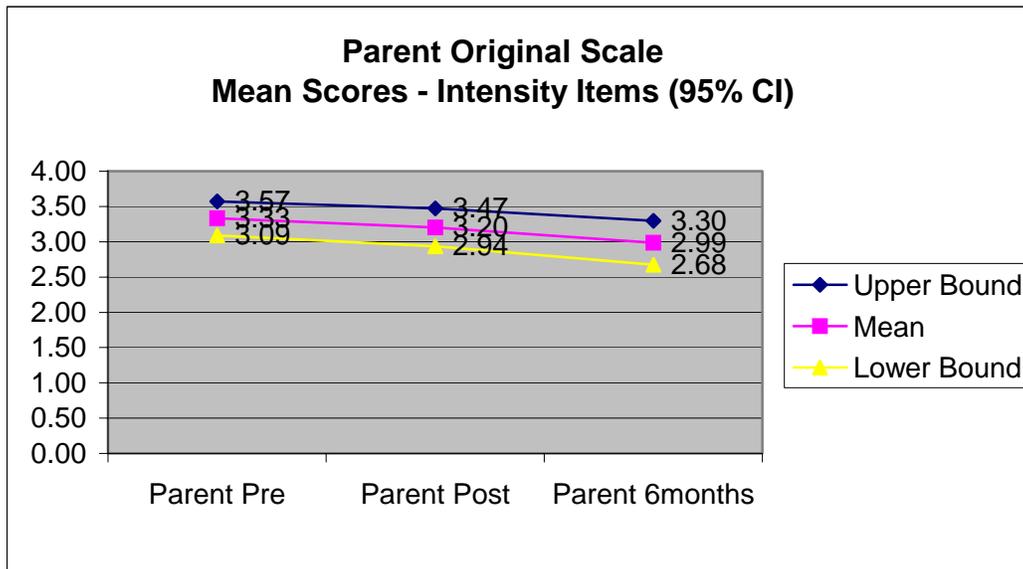


Table 9 shows the full range of paired comparisons. For teacher raters, as we have just seen, the gains were particularly noticeably for paired comparisons of differences between referral and all pre, post and six months follow-up scores and meet the test of statistical significance for paired samples. However, the downward trend for parent raters, although noteworthy, did not produce comparisons meeting the test of statistical significance.

Two child (self-rater) scales (Table 9) produce an apparent increase in self-reported problem behaviour; however, this is a suspect result, given that this experimental inventory proved to have low internal consistency. Overall, therefore, these results suggest that, in the most important measure of the Intensity Scale for teachers and parents, the program did have a positive and, for teachers, statistically significant effect in reducing the undesirable behaviours of participating children.

Figure 15: Original Scale Parent Rater Mean Scores - Intensity Scale



The interpretation of these results is complicated by the result that the most significant decline in scores occurred across the whole program, rather than, as one might expect, between the observations taken immediately before and after delivery. This may indicate that, in order to properly evaluate the effects of this program, the whole process, from referral to six-month follow-up must be taken into account. The dramatic decline for teacher scores from referral to the commencement of the program (i.e. to pre-rating scores), a period of six weeks, needs to be explained as well, as it would seem that the expectation of improvement rather than the actual treatment itself may have been a significant effect. It should be noted that these mean differences were based on paired comparisons, which implies a listwise selection of cases. Because of the relatively high incidence of missing data across the program, this may result in some slight discrepancy between these difference values and those calculated from the individual distribution values in Table 9.

**Problem Scales - “Is this a problem for you?”**

The results from comparisons with the Original Problem Scales (Table 10) reinforce the inference of decline in perceptions of raters of problem behaviours (remembering that the negative sign is a product of the reverse scoring of yes=1, no=2, “Is this a problem for you?”, so that a higher value for the second score indicates a decline in perceived importance of that item as a problem). Here, again, the greatest decline in ‘t’ values is found in the teacher scale, between the point of referral to the commencement of the program (i.e. referral minus pre mean item score). The highest effect size in this scale is, however, between referral and the six months follow-up problem scores.

Table 9. Original Scales, Intensity Items Effect Sizes

<i>Original Scales - Intensity Items- Paired Sample Comparisons, Mean Item Score*</i>										
<i>Descriptives - Difference Scores</i>										
<i>Rater and Scale</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>S.E. Mean</i>	<i>T</i>	<i>Df</i>	<i>Sig.</i>	<i>N<sup>#</sup></i>	<i>Correl.</i>	<i>Sig.</i>	<i>Cohen's 'd'</i>
Teacher referral - pre	0.46	0.79	0.17	<b>2.74</b>	<b>21.00</b>	<b>0.01</b>	22.00	0.42	0.10	<b>0.63</b>
Teacher referral - post	0.56	0.86	0.18	<b>3.13</b>	<b>22.00</b>	<b>0.01</b>	23.00	<b>0.43</b>	0.00	<b>0.70</b>
Teacher referral - 6 months	1.10	1.13	0.27	<b>4.15</b>	<b>17.00</b>	<b>0.00</b>	<b>18.00</b>	0.03	0.90	<b>1.36</b>
Teacher pre – post	0.08	0.78	0.13	0.60	34.00	0.55	35.00	<b>0.61</b>	0.00	0.09
Teacher pre – 6 months	0.70	1.19	0.24	<b>2.88</b>	<b>23.00</b>	<b>0.01</b>	24.00	0.15	0.50	<b>0.77</b>
Teacher post – 6 months	0.61	1.15	0.23	<b>2.67</b>	<b>25.00</b>	<b>0.01</b>	26.00	0.20	0.30	<b>0.66</b>
Parent pre - post	0.11	0.66	0.11	1.03	38.00	0.31	39.00	<b>0.69</b>	0.00	0.13
Parent pre – 6 months	0.19	0.72	0.14	1.39	27.00	0.18	28.00	<b>0.59</b>	0.00	<b>0.24</b>
Parent post - 6 months	0.18	0.75	0.14	1.26	26.00	0.22	27.00	<b>0.62</b>	0.00	<b>0.21</b>
Child pre – post	-0.33	0.79	0.13	<b>2.51</b>	<b>36.00</b>	<b>0.02</b>	37.00	0.15	0.40	<b>-0.54</b>
Child pre - 6 months	-0.18	0.75	0.14	-1.23	27.00	0.23	28.00	0.06	0.80	<b>-0.32</b>
Child post – 6 months	0.19	0.52	0.10	1.86	26.00	0.07	27.00	<b>0.67</b>	0.00	0.29

\*t-test comparisons with p values .05 or less and Cohen's 'd' values GT + or - .2 are shown in bold

<sup>#</sup>N for paired comparisons excludes cases that do not have valid data for both variables.

Table 10. Original Scales, Problem Scale Effect Sizes

<i>Original Problem Scales - Paired Sample Comparisons: Mean Item Scores*</i>									
<i>Comparison Pair</i>	<i>Difference Descriptives</i>				<i>Sign.</i>		<i>Correl.</i>	<i>Sign.</i>	<i>Effect Size Cohen's d</i>
	<i>Mean</i>	<i>Std. Dev.</i>	<i>S.E. Mean</i>	<i>T</i>	<i>(2tld.)</i>	<i>N<sup>#</sup></i>			
Teacher referral – pre	-0.24	0.09	0.04	<b>-6.10</b>	<b>0.00</b>	5.00	<b>0.93</b>	0.02	<b>-1.05</b>
Teacher referral – post	N/A (Only one valid pair)								
Teacher referral – 6mth	-0.29	0.18	0.09	<b>-3.20</b>	<b>0.05</b>	4.00	0.39	0.61	<b>-1.76</b>
Teacher pre – post	-0.10	0.29	0.07	-1.40	0.17	18.00	0.43	0.07	<b>-0.36</b>
Teacher pre - 6 mths	-0.19	0.27	0.06	<b>-3.00</b>	<b>0.01</b>	18.00	0.00	0.99	<b>-0.99</b>
Teacher post - 6 mths	-0.12	0.33	0.08	-1.50	0.15	17.00	0.11	0.67	<b>-0.49</b>
Parent pre – post	0.05	0.21	0.04	1.37	0.18	34.00	<b>0.57</b>	0.00	<b>0.22</b>
Parent pre - 6 mths	-0.05	0.27	0.05	-0.80	0.41	25.00	0.37	0.07	-0.19
Parent post - 6 mths	-0.11	0.27	0.05	<b>-2.00</b>	<b>0.06</b>	25.00	<b>0.47</b>	0.02	<b>-0.41</b>

Note: Since Problem Scales are scored yes=1 and no=2, a negative difference value indicates a perceived reduction

\*t-test comparisons with p values .05 or less and Cohen's 'd' values GT + or - .2 are shown in bold

<sup>#</sup>N for paired comparisons is based on a listwise exclusion of cases that do not have valid data for both variables.

There are also significant gains in the parent scale comparisons (there was no Problem Scale in the Child inventory), particularly between the post and the six month follow-up scores. In contrast to the results from the Intensity items, there was found to be an

important effect size value (.358) between the pre and the post teacher scale measures, though this was not statistically significant in 't' values. Therefore, the Problem Scales, though difficult in some cases to interpret in the cross-cultural context, confirmed the positive effects of the program in leading to a reduction in the perception of problem behaviours observed in the trends of Intensity Scale.

### Revised and Validation Scales

The Revised and Validation Scale comparisons (Tables 11, 12 and 13) contribute less directly to the picture of program gains, as measured by either their pre-post pair comparisons of mean item scores, or the estimates of effect size. These two trials represent different aspects of the evaluative procedure. The Revised Scales data on the one hand included results for a sample of which about a half (13 out of 28 children) were on the Waiting List, and did not participate in the group program, while the Validation Scales were administered without occurrence of a treatment program. These two stages, however, do provide valuable insights into both the quality of the instrumentation and the more subtle effects of inclusion in the referral, admission and testing process, as opposed to exposure to treatment.

#### Revised Scales

For the Revised Intensity Scales, which included about half of the waiting list sample who did not receive the program (see below for disaggregation of effect for both samples), only the parent Intensity Scale comparison showed significant decline, with an effect size value of .48. The Revised Teacher Problem Scale yielded a marginally important value of effect size (.23). For the Revised Problem Scales, the values actually "went backwards" in the Parent inventory, indicating a slight, not statistically significant, *increase* in perceptions of problem behaviours. However, this scale (which asks "Is this a problem for you?" after each Intensity item) was often ambiguously received by respondents.

Table 11. Revised Scales, Means and Effect Sizes

<i>Revised Scales - Paired Sample Comparisons: Mean Item Score Difference Descriptives</i>									
<i>Scale – Rater</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>S.E. Mean</i>	<i>t</i>	<i>Df #</i>	<i>Sig.</i>	<i>Correl.</i>	<i>Sig.</i>	<i>Effect Size Cohen's 'd'</i>
<b>Revised Scales</b>									
Teacher Intensity Pre – Post	0.07	0.79	0.18	0.37	19.00	0.72	<b>0.71</b>	0.00	0.06
Parent Intensity Pre – Post	0.43	0.72	0.15	<b>2.92</b>	<b>23.00</b>	<b>0.01</b>	<b>0.67</b>	0.00	<b>0.48</b>
Child Intensity Pre – Post	-0.11	0.60	0.14	-0.78	17.00	0.45	<b>0.67</b>	0.00	-0.15
Teacher Problem Pre – Post	0.07	0.22	0.05	1.33	17.00	0.20	<b>0.73</b>	0.00	<b>0.23</b>
Parent Problem Pre – Post	-0.03	0.23	0.05	-0.62	21.00	0.54	<b>0.45</b>	0.04	-0.14

\*N for paired comparisons excludes cases that do not have valid data for both variables

#### Revised Scale: Program and Waiting List Comparison

We turn then to consider the difference in the two samples of the Revised scale, between those children to whom the program was delivered (n=15) and those who remained on the

waiting list, but to whom the various scales were administered. While this is the closest that any stage of this evaluation comes to that of a classic controlled (OXO) experimental design, the high incidence of missing data severely reduces the number of cases for valid paired comparisons (n=13,7 for teachers pre and post respectively, 14,10 for parents and only 14,4 for children). The results (Table 12), based on these reduced numbers, nevertheless present a rather counter-intuitive pattern of outcomes, at least as suggested by scores on the Intensity Scales. Contrary to expectations, for the Teacher scale in particular, there appears to be a distinct superiority of the improvement scores (indicated by a positive value) on the Waiting List group, as compared to a slight decline for those who took the program.

While not statistically significant, in effect size terms (not shown), this difference yields a relatively high Cohen’s *d* value of -0.6 (-.495 divided by a pooled standard deviation of .77) for teachers. For the Parent scale, the difference is not significant in either measures and for the Child scale, the low numbers of valid pairs (n=4) render the result of little consequence. The Teacher scale results deserve some comment, perhaps, since they reflect the unexplained non-treatment effects noted for the Teacher scale scores between referral and pre program observations for Stage I (Fig 14).

**Table 12. Comparison of Waiting List and Program Means**

<i>Revised Scale - Comparison of Program and Waiting List Mean Difference - Pre Minus Post (Intensity Scales)</i>								
<i>Rater</i>	<i>Sample</i>	<i>N</i>	<i>Mean</i>	<i>Mean Difference</i>	<i>Std. Error Difference</i>	<i>T</i>	<i>Df<sup>#</sup></i>	<i>Sig. (2-tailed)</i>
Teacher	Program	13	-0.108					
	Waiting List	7	0.3868	-0.49482	0.36349	-1.36	18	0.19
Parent	Program	14	0.4521					
	Waiting List	10	0.396	0.05608	0.3041	0.184	22	0.855
Child	Program	14	-0.171					
	Waiting List	4	0.1023	-0.27293	0.34413	-0.79	16	0.439

<sup>#</sup>N for paired comparisons excludes cases that do not have valid data for both variables.

Does the very fact of eligibility for, or inclusion in, the program have a demonstrable effect on perceptions of children’s behaviour, and does this perception reflect measurable changes in behaviour? Are these effects equal to, or even greater than, those of the actual treatment itself? This pattern of results is suggestive of fairly strong non-treatment effects, whose magnitude may perhaps only be resolved by further research within a more statistically controlled, quasi-experimental design.

**Validation Scales.**

There was no program for this stage (Table 13). The scales were tested twice, one school term apart for validation purposes only. It is of interest that there were observable, though not statistically significant, declines in perceived problem behaviours as indicated by the drop in pre-post mean item scores for the Teacher Intensity Scale. Here we note an effect

size of .21, which, though marginal, may warrant consideration, given the absence of treatment.

**Table 13. Validation Scales Mean Item Scores**

<i>Validation Scales – Paired Sample Comparisons: Mean Item Score</i>									
<i>Difference Descriptives</i>									
<i>Scale – Rater</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>S.E. Mean</i>	<i>t</i>	<i>df</i>	<i>Sig.</i>	<i>Correl.</i>	<i>Sig.</i>	<i>Effect Size</i> <i>Cohen's 'd'</i>
Teacher Intensity Pre – Post	0.18	0.8	0.12	1.53	47	0.13	0.54	0	0.21
Parent Intensity Pre – Post	-0.02	0.66	0.1	-0.23	44	0.82	0.65	0	-0.03
Teacher Problem Pre – Post	-0.05	0.17	0.03	-1.8	39	0.08	0.45	0	-0.27
Parent Problem Pre – Post	0.02	0.21	0.03	0.54	48	0.59	0.46	0	0.08

For the Parent *Intensity Scale*, however, there was no effect noted on either measure. This reverses the pattern of outcomes for the Revised Scales. For the Validation Teacher *Problem Scale*, however, the direction was negative, indicating a decline in perceived severity of problem behaviours. For parents, there was no significant increase or decrease.

## 6.7 Hypothesis III: Measurement in Context - Family and School Effects

### Measuring Covariate Effects (Statistics 7 and 8)

The covariate analysis was seen as quite important for both predicting individual scale scores, as well as for predicting responsiveness to the program treatment (see following section). However, the estimation of background effects on program process and outcomes was problematic in the case of the Original and the Revised scale stages, due to the number of predictor variables and the amount of missing data. As a consequence, the choice of statistical method across the stages was necessarily contingent on the nature of the data set. Because of this limitation, bivariate analysis (one-way Anova) was preferred for these first two stages in estimating covariate effects on scale scores, and it was only in the third stage (Validation Scale), that numbers of valid cases permitted a multivariate approach.

Because of data quality concerns, the results reported here tend to concentrate on the Teacher scale scores, though full analyses for the other two rater scales are included in the Data Archive, together with full correlation matrices. Basically there were two types of covariate measures: data on gender, school situation (including school grade, academic performance, Tiwi/non-Tiwi teacher rater and level of parental contact with the school – all taken at the pre-program stage); and data on a set of family background variables gathered by parent interview for both Stage I and Stage III. Each of these were included in the analysis. These included a range of risk factors such as exposure to suicide within the family, and a number of family structure and situation variables, such as the size and complexity of the household.

Program “gains” (declines in problem behaviours), as identified by the significant ‘t’-tests of the mean difference in the mean Intensity item score for all three stages, were regressed on predictors - gender, school grade and academic rating and parental contact with the school at the time of the first observation (referral for Original Scales and at pre-program for the other two stages). For the Original Scales, where there was clearer and more complex evidence of gains (Table 9), the pattern of prediction varies with the gain pair. For the important and fairly large reduction from referral to pre-program Teacher Intensity scores, it appears that the biggest drop is in the lower school grades, as indicated by the negative value of the coefficient. Over the period from referral to post program, however, it appears that girls do not improve as well as boys in response to the program in terms of reduction in mean teacher intensity score, again as indicated by the very large negative regression coefficient, while for the pre-post comparison, gender drops out and grade re-appears, although it is here that the higher grades appear to respond more positively. The Parent Intensity pre–post measure of “gain” in mean item score appears to repeat these latter patterns, with a lower responsiveness for girls and a higher gain in the upper school grades. This pattern of response would indicate that the big improvement is found in boys in the program, particularly in the upper grades, while the younger children appear to respond to the mere fact of inclusion in the program, particularly in the interval between the points of referral and program commencement (about 6 weeks).

**Table 14. Original Scales, Mean Gains by Gender and Grade**

<b>Original Scales Predicting Mean Item Gain Score: Teacher and Parent Intensity Scales*</b>			
<b>Multiple Regression Analysis</b>			
<b>Standardised (Beta) Regression Coefficients (sign p=0)</b>			
Paired Means	Female Gender	School Grade (higher)	Academic Rating (Ref)
Teacher Ref Minus Pre	NS	<b>-0.54 (0.04)</b>	NS
Teacher Ref Minus Post	NS	NS	NS
Teacher Ref Minus 6mths	<b>-0.83 (0.086)</b>	NS	NS
Teacher Pre Minus Post	NS	<b>0.55 (0.09)</b>	NS
Parent Pre Minus Post	<b>-0.87 (0.03)</b>	<b>0.55 (0.08)</b>	NS

\*Identified as having significant mean difference by t-test (Parental Contact also insignificant)

**Table 15. Revised Parent Intensity, Mean Gains**

<b>Revised Scales Predicting Mean Item Gain Score- Parent Intensity Scale Pre Minus Post</b>					
<b>Predictor</b>	<b>Unstandardized Coefficients</b>	<b>Standardized Coefficients</b>		<b>T</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	0.44	0.95		0.46	0.65
Female gender	0.06	0.45	0.04	0.14	0.89
School grade	-0.02	0.11	-0.06	-0.22	0.83
Academic rating (Pre)	0.22	0.24	0.24	0.93	0.37
Parent contact (Pre)	-0.22	0.26	-0.23	-0.84	0.42

For the other stages, there were only two significant gains to explore, for parents in the case of Revised mean item intensity score, and for teachers (barely significant, but with a high Cohen’s *d* measure). The full regression analysis results are shown in Tables 16 and 17. For the Revised scale, there is no significant predictor of the “gains” in perceived behaviour, which may be rather strange, given the rich field of relationships shown in the Original Scale results of Stage I.

**Table 16. Validation Scale, Mean Changes**

<b>Validation Scale: Predicting Mean Item Change Score - Teacher Intensity Scale, Test Minus Retest</b>					
<b>Predictor</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	-0.35	1.135		-0.31	0.759
Gender	-0.08	0.326	-0.044	-0.25	0.802
<b>School grade</b>	<b>0.257</b>	<b>0.108</b>	<b>0.435</b>	<b>2.375</b>	<b>0.025</b>
Academic rating (Pre)	-0.09	0.233	-0.063	-0.37	0.714
Parent contact (Pre)	-0.2	0.294	-0.125	-0.67	0.51

The Validation Scale results show a very powerful effect of School Grade on gains for the mean item score of the Teacher Intensity Scale. Again this is strange, since this stage was not program-based. The other variables, however, do not show any significant predictive effect. Since this is probably the stage with the highest data quality, the effect of exposure to the program, even if this only means inclusion in a testing regime, must not be ignored.

**Predicting Scale Values: Covariates and “Risk” (Statistic 8)**

The patchy and rather inconsistent results from the regression analysis of the gains across the program should perhaps be placed in context, which might include the prediction of single-scale mean item scores, rather than their differences across points of the program. The prediction of the individual scale mean item scores are shown in the Data Archive, which includes both one-way analyses of variance of the score for each independent or predictor variable and full correlation matrices, which suggest the direction of the effect whether positive or negative. For the Original Scale, for example, there are a number of statistically significant relationships which give some perspective to the interpretation of “gains”. For the Original Scales, there is a significant negative bivariate correlation (-.4, *p*=.01) between female gender and the Teacher pre scale, which might suggest that the lower responsiveness of girls to the program may be a function of the already lower base of benchmark incidence of behaviour problems. There is also a significant positive correlation (.32, *p*=.03) for having a Tiwi teacher rater for the referral stage. Though the Tiwi/non-Tiwi identity of teacher raters is not shown in the above analysis, it may have an important mediating effect in a more complex model with better quality data.

*The Components of “Risk”*

Given the number of potential variables for inclusion in the Original Scale, it was desirable that the risk and background variables (12 in all) be reduced to a limited constituent factor or component scores. This exercise proved to be instructive for substantive, as well as methodological, reasons. As shown in Table 17, both the risk factors and the family situation variables reduce quite clearly to two underlying components, which together explain over half the variance in the observed scores for the former set, and almost three quarters (73%) for the latter. This clarity of the pattern of loadings (which is very close to “simple structure” whereby each variable loads on one factor alone) reveals two underlying and uncorrelated dimensions. For the risk factors, it is clear that exposure to deaths and suicide are quite distinct from exposure to “abuses”.

The reasons for this separation deserve further analysis, but it may be that while “deaths” (including suicide) are a function of physical ill health and external or exogenous pressures which affect individuals, the “abuses” are seen to be a product of internal dysfunctions which are disruptive of social and family relationships. In the case of the family structure variables, there is also a clear split, with the relationships (one might say “non-normativity” of the household by Western models) on the one hand and the size and complexity of the household on the other.

**Table 17. Original Scales, Family Factors**

<i>Original Scales: Principal Component Analysis of Family Factors</i>		
<i>Background Variables Component Loadings</i>		
<i>Family Risks</i>	<i>Component 1</i>	<i>Component 2</i>
<i>Varimax Rotation- Pairwise selection</i>	<i>"Exposure to Deaths"</i>	<i>"Exposure to Abuses"</i>
Exposure to deaths	<b>0.76</b>	-0.22
Exposure to death of parent	<b>0.78</b>	-0.03
Exposure to suicide within family	<b>0.69</b>	0.35
Exposure to family violence (past)	0.00	<b>0.65</b>
Exposure to parental substance abuse	0.09	<b>0.59</b>
Mental Health probs in family	-0.15	<b>0.84</b>
% Variance Explained	28%	27%
<i>*Family Structure</i>	<i>Component 1</i>	<i>Component 2</i>
<i>Varimax Rotation- Pairwise selection</i>	<i>"Relationships"</i>	<i>"Overcrowding"</i>
Current fostering	<b>0.76</b>	0.06
Marital status of birth parents	<b>0.86</b>	-0.12
No of people in household	-0.13	<b>0.89</b>
Household Composition- No of generations	0.27	<b>0.80</b>
Household Make-up-Non-nuclearity	<b>0.81</b>	0.40
% Variance Explained	41%	32%

\*Loadings (correlations between variables and their factors) + or - .6 and over are shown in bold

While it may be expected that large, complex households containing several generations will contain a higher proportion of “non-normative” family types, their separation of structure from relationships indicates that this appears not to be the case, or else these

structural variables would have simply provided negative loadings on a first (bipolar) factor, rather than showing a clear autonomy of their own. The label “overcrowding”, with its negative associations of lack of privacy and health and development concerns, may therefore perhaps be inappropriate in this context, although it is held to be a crucial factor in recent debates over the ownership and maintenance of community housing.

Again, there were significant one-way analysis results for the level of program participation (the number of child attendances) on both the referral and six month follow-up scores, where the effect of the latter produces a positive association ( $r=.58$ ,  $p=.014$ ). Because the pairwise matching is not an issue, the effect “risk” and “family structure” factors (Table 17) can be estimated on each of the four points of observation for Original Scale mean item values. The “Abuses” factor was negatively associated with “post-program scores” ( $-0.62$ ,  $p=.005$ ) on the Teacher Intensity Scale, perhaps indicating a higher sensitivity of children with this background to the program. The “Overcrowding” factor, was, however, positively associated with higher scores for the six-months follow up on the same scale. This result is difficult to interpret as it stands, since it does not show any effect for the previous three sets of scores.

While there were problems obtaining a sufficient number of cases for multivariate prediction with Original and Revised scale data, the Validation Scales at least provided a sufficient number of cases both for replicating the “risk” factor structures of Table 18 from parent interview schedule data and, depending on the outcome, regressing the mean item score for the scale onto the full range of predictors, including the individual family background risk and structural factors. A Principal Component analysis was carried out on both sets of variables (which differed slightly from those used for Stage I), whose results are available in the Data Archive. In contrast to the clear alignment of the variables on distinct factors for Stage I, it was found that the construct validity of each component or factor was much more complex and blurred. For the “risk” variables, two main factors were requested with Varimax rotation, which explained respectively 22% and 19% of the variance in the observed scores, with variables such as “violence between parents” loading heavily on both components ( $-0.624$  and  $0.58$ ). For the structural/household variables, on the other hand the loadings were concentrated on a first large component which explained 52% of the variance, while the second explained only 23%. Items were in some cases more difficult to identify as belonging to either one set or the other, but juggling between them did not produce a clearer solution. It could only be concluded that for this randomly chosen sample, as distinct from the referred sample of Stage I, structural separation of their underlying dimensions is not achievable.

For this second investigation, the prediction of the mean item scores for the Validation Scales, therefore included these family risk and structural factors as a block rather than as factor scores, together with school grade, attendance record and parental contact with school. This analysis used a “stepwise” procedure which selects among predictor variables in turn, according to the strength of their partial correlation with the predicted or dependent variables, and then either includes or rejects them in arriving at a final predictive model. This inductive procedure is appropriate here because of the large number of possible predictors. Gender was omitted from the list of predictors in this

procedure, since it failed to correlate with three scales and yielded only a low and marginally significant correlation (-0.23, p=.06) with the Teacher pre-program scale.

Table 18 shows again the variability of the predictive pattern, as variables may provide quite high values of standardized coefficients for one or two scale scores, but drop out of statistical significance completely for the others. Parental Contact, for example, seems to be a good predictor for the Teacher post program scale, while attendance (Is the child missing school?) has moderately high standardized coefficient values for both Parent scales, but not for either of the Teacher scales. “Violence between parents” is a moderately powerful predictor for the Teacher pre-program values, but does not appear to be significant in either of the later score regressions. Paradoxically perhaps, parents’ use of drugs appears to be negatively associated with their post-program scores of a child’s perceived behavior problems. Because these analyses are based on a random, rather than a teacher-referred sample, they provide the best guide to predicting the factors which lead to inclusion in the program, in distinction to the earlier covariate analyses which were more focused on the prediction of individual response to the program itself.

**Table 18. Determinants of Test Scores, Validation Outcomes**

<b>Predicting Test Scores - Validation Scale Multiple Regression Analysis (Stepwise)</b>					
<b>Covariate</b>	<b>Statistic</b>	<b>Teacher Pre</b>	<b>Teacher Post</b>	<b>Parent Pre</b>	<b>Parent Post</b>
Parent contact	Stand. Reg. Coeff. (beta)	NS	<b>0.466</b>	NS	NS
	Sig. (2-tailed)	NS	<b>0.008</b>	NS	NS
	N	NS	<b>df=30</b>	NS	NS
Is child missing school	Stand. Reg. Coeff. (beta)	NS	NS	<b>0.573</b>	<b>0.416</b>
	Sig. (2-tailed)	NS	NS	<b>0.001</b>	<b>0.01</b>
	N	NS	NS	<b>df=30</b>	<b>df=30</b>
Violence between parents?	Stand. Reg. Coeff. (beta)	<b>0.457</b>	NS	NS	NS
	Sig. (2-tailed)	<b>0.01</b>	NS	NS	NS
	N	<b>df=30</b>	NS	NS	NS
Do parents use drugs?	Stand. Reg. Coeff. (beta)	NS	NS	NS	<b>-0.418</b>
	Sig. (2-tailed)	NS	NS	NS	<b>0.01</b>
	N	NS	NS	NS	<b>df=30</b>

**Predicting self harm: threats of suicide and self harm (Original Scales)**

The original intention of the Tiwi Health Board was to adapt Exploring Together as part of a strategy to reduce suicide and self harm. While the issue of suicide prevention is a very complex one, and the outcomes of early intervention may not be apparent for years, it is of interest to examine reports of self harm and other relevant indicators as specific sources of risk in the evaluation measures.

In the Parents' Rating Form, parents are asked whether the child has threatened to kill him or herself, and whether he or she has ever threatened self-harm. Of a sample of 36 questionnaires with complete entries, 77% of parents maintained that their child had never threatened suicide. Of the remaining 23% whose children had threatened suicide, 19%, had done so sometimes, often or very often (very often 11%). At post-treatment, responses were 84% and 12.9% (with none doing so, 'very often'). Preliminary indications are that, overall, the items appear to yield stable responses, so that raw data suggests that there may be a decline in suicide threats which may be attributable to program participation. Concerning children's threats to harm themselves, there was no apparent change across the program in those who at commencement recorded sometimes, often or very often, or in those who were reported as never threatening self harm.

The occurrence of suicide threats may well be understated by some parents: one young mother maintained that her son had not threatened suicide, although the group leaders had clearly heard him do so on a number of occasions. It was ascertained that this mother had herself frequently threatened suicide during conflict with her spouse in the preceding months. There is however no further reason to suggest that this reaction to the questionnaire is widespread.

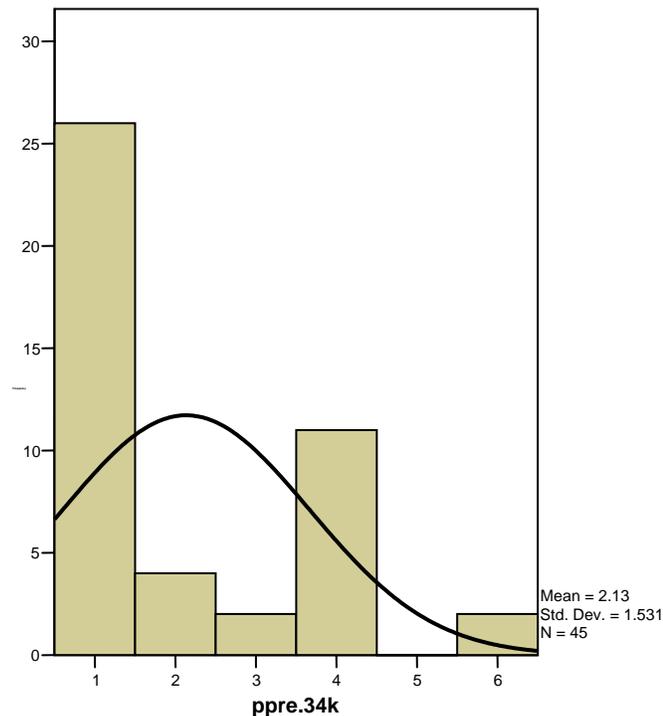
#### *Covariate analysis*

On inspection of the distributions of individual self harm items on the parents and child scales, some bimodal tendencies stand out. While the bulk of respondents answered "never", there was nevertheless a significant proportion (up to 25% in the case of the Parent pre item - "threatens to hurt self") which clustered around category 4 of the 6 point frequency scale.

This pattern of bimodality was repeated, to a smaller or greater degree, through the other scale distributions for similar items and for other phases or scales.

The question to be explored then was: is a positive answer to any one of these items, i.e. "never" versus another response indicating at least some tendency towards self harm or threats of self harm, predictable from a knowledge of the children's characteristics (e.g. school grade, gender); teacher ethnicity; scholastic record; or parental contact with the school; family background; risk factors such as exposure to family deaths, family abuses; household structure (nucleation) or size (overcrowding)? Since data on all these variables existed, and because these have received extensive treatment in the literature on child suicide and self harm, it was decided to explore these relationships further.

Figure 16. “Threatens or attempts to hurt self”, Original Scale



#### Methodology

*Dependent variables.* To simplify the analysis, four items from the Original Scales data base were recoded, two from each of the Parents and Child scales (Parent Scale – Item 18, “threatens suicide” and Item 34, “threatens or attempts to harm”; Child Scale – Item 19 “Do you promise to, or try to hurt yourself?” and “Item 22, “Do you feel sad”?) into dichotomous scoring of the “never” category (score 1) and all the other responses (score 2-6) for each item.

*Predictor Variables.* Because of the high tendency towards multicollinearity (high levels of inter-correlation) among the predictor variables (as determined by a preliminary screening stepwise regression procedure), a restricted number of variables were chosen for inclusion in the predictive model. These were gender (female =1, male =0), academic record rating at time of referral (Good = 3, Average = 2, Poor = 1). Variables were also entered recording values of responses to parental interview questions for various “risk” factors, coded 1 and 0, for presence/absence of that behaviour: exposure to deaths (in the family), exposure to suicide in the family, exposure to family violence in the past. Also included were the number of people in the household, the number of generations in the household and the marital status of birth parents (coded 1 = together; 2 = one parent dead; 3 = separated or divorced). Excluded at this stage was the TREF item ‘Level of Parental Contact with the School’. This had relatively high correlations with the suicide threats item, but appeared to be a proxy variable for other background factors. It should still be considered as an important “risk” factor, however, for diagnostic purposes.

*Results.* Linear regression (Ordinary Least Squares) analysis of these four scale items

onto these predictor variables was carried out, using listwise selection procedure (df = 19 for all regressions). Results are given in Tables 19 and 20 below. These show the significant (or noteworthy) effects of each predictor variable on the dependent or predicted variable when all of the others in the model are controlled for. Of the four regression analyses, the results for only three are shown, the exception being that for Item 19 of the Child scale (“Do you promise, or try to hurt yourself?”), where the significance values of all coefficients were quite large.

The strongest predictor reporting a child’s making threats of suicide appears to be in the negative effect of exposure to the death of a parent. This is quite significant and appears to be strong also in the stepwise procedure used earlier (not shown here). Household structure (complexity and size) also appear to exert negative effects, which may reflect a depressing effect of denser social contacts in these households (an effect not unlike Durkheim’s observation regarding the positive influence of “mechanical solidarity” in pre-modern social relationships). Exposure to death in the family seems to exert a positive effect on the likelihood that child reports making suicide threats, though the bivariate correlation coefficient between these two variables is not significant. It would appear that, in the more complicated multivariate model used here, this relationship has been suppressed in the bivariate relationship, and assumes greater significance when the other variables (perhaps the household/family structure variables) have been controlled for.

**Table 19. Regression analysis of item “Threatens suicide”**

<i>Regression Analysis of Original Parent Scale Item 18 - "Threatens Suicide" - Yes/No</i>					
<i>Predictor</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
(Constant)	2.16	0.80		2.72	0.02
Gender	-0.17	0.22	-0.16	-0.77	0.46
TREF Academic rating	0.03	0.15	0.04	0.20	0.84
<b>Exposure to death of parent</b>	<b>-0.69</b>	<b>0.28</b>	<b>-0.55</b>	<b>-2.50</b>	<b>0.03</b>
Exposure to family violence (past)	0.33	0.24	0.33	1.38	0.20
Marital status of birth parents	-0.03	0.10	-0.06	-0.34	0.74
<b>No of people in household</b>	<b>-0.11</b>	<b>0.06</b>	<b>-0.39</b>	<b>-1.90</b>	<b>0.08?</b>
Household Composition- No of generations	-0.31	0.24	-0.30	-1.30	0.22
<b>Exposure to suicide within family</b>	<b>0.87</b>	<b>0.46</b>	<b>0.38</b>	<b>1.92</b>	<b>0.08?</b>

The only effect worth noting in the analysis of the item, “threatens suicide” is the negative influence of “exposure to suicide within the family” on a child’s reported threats or attempts at self harm. This reverses the positive effect on the threats of suicide of the previous regression model, and may either be either an indication that these are qualitatively different levels of threat, with the possibility that a suicide threat may be taken more seriously, given similar family experiences, or an artifact of the specification of the model and of the suppressor effects of the other variables in the case of suicide

threats. These possibilities deserve further investigation with a larger sample.

Table 20. Regression analysis of item "Threatens/attempts self harm"

<i>Regression Analysis of Parent Original Scale Item 34 "Threatens-Attempts Self Harm" - Yes/No</i>					
<i>Predictor</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
(Constant)	1.02	1.18		0.87	0.40
Gender	0.19	0.33	0.19	0.57	0.58
TREF Academic rating	0.12	0.22	0.17	0.54	0.60
Exposure to death of parent	0.08	0.41	0.07	0.20	0.85
Exposure to family violence	0.22	0.36	0.23	0.61	0.56
Marital status of birth parents	0.08	0.14	0.16	0.56	0.59
No of people in household	0.01	0.08	0.03	0.09	0.93
Household No of generations	-0.43	0.35	-0.45	-1.24	0.24
<b>Exposure to suicide within family</b>	<b>-1.16</b>	<b>0.67</b>	<b>-0.55</b>	<b>-1.73</b>	<b>0.11?</b>

Table 21. Regression analysis of item "Do you feel sad?"

<i>Regression Analysis of Original Child Scale Item 22 ("Do you feel sad?") Yes/No</i>					
	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
(Constant)	2.614	0.972		2.69	0.021
Gender	-0.317	0.27	-0.378	-1.173	0.266
TREF Academic rating	-0.036	0.179	-0.061	-0.202	0.844
Exposure to death of parent	-0.476	0.337	-0.476	-1.411	0.186
Exposure to family violence	-0.021	0.294	-0.026	-0.072	0.944
Marital status of birth parents	-0.115	0.116	-0.262	-0.994	0.341
<b>No of people in household</b>	<b>-0.14</b>	<b>0.069</b>	<b>-0.642</b>	<b>-2.037</b>	<b>0.066</b>
Household Composition:					
No of generations	-0.049	0.289	-0.059	-0.171	0.867
Exposure to suicide within family	0.84	0.557	0.458	1.507	0.16

The item, "Do you feel sad?", is a child's self report; its relationship to patterns of parental ratings presents interesting possibilities. Here, again, there is only one effect which reaches an approximate level of significance ( $p < .05$ ), namely the number of people in the household, which appears to exert a negative influence on depressive ("sad") feelings. Noteworthy, perhaps, is a repetition of the predictive pattern found in Table 19, with exposure to death in the family reappearing as a positive effect and exposure to a death of a parent a negative effect. Female gender is also a negative influence, though not

statistically significant.

### Program Effect and Self Harm Items

Were there any significant “gains” in these specific items relating to self harm? Table 19 explores this issue by comparing the average or mean reduction in perceived behaviours or feelings by both parent and child raters. While the differences in mean item scores are not statistically significant, there is nevertheless, as indicated by the Effect Size (Cohen’s ‘d’ values), an appreciable improvement of parental perception for both items, particularly for the pre- minus post- difference for the “threatens suicide” item. For the child-reported item, there is, paradoxically, an increase in the perceived frequency of “feeling sad”, a finding which resonates with the increase in some problem behaviours on this self-rating scale in comparisons of the total scale mean scores (see Table 9). While these trends may be of interest, it must be recalled that there was some doubt cast over the validity and reliability of the entire child rater scales, which caused it to be dropped in later versions.

**Table 22: Paired comparisons of reduction in reported self-harm items (Original Parent and Child Scales)**

<i>Self-Harm Items Paired Samples T-test – Original Scales Parent and Child Raters</i>							
<i>Paired Differences</i>	<i>Std.</i>		<i>t</i>	<i>N</i>	<i>Sig. (2-tailed)</i>		<i>Cohen's "d"</i>
	<i>Mean</i>	<i>Dev.</i>				<i>r</i>	
<b>"Threatens Suicide"(Parent Scale)</b>							
Pre minus post	0.35	1.91	1.14	37.00	0.26	0.00	<b>0.26</b>
Pre minus 6mths	0.50	1.71	1.55	27.00	0.13	0.32	<b>0.34</b>
<b>"Threatens self-harm"(Parent Scale)</b>							
Pre minus post	0.30	1.56	1.19	38.00	0.24	0.47	<b>0.20</b>
Pre minus 6mths	0.14	1.94	0.39	27.00	0.70	0.28	0.09
<b>"Do you feel sad?"(Child Scale)</b>							
	-0.24	2.18	-0.68	36.00	0.50	0.21	-0.14

### Discussion

1. There appears to be a definite negative effect of exposure to death of a parent on a caregiver’s report of a child’s threats of suicide. Because the rater may also be the surviving parent, there may also be a complicating factor in the rater’s perceptions of children’s behaviours.
2. Household size appears to have an indicative negative effect on reports of both threats of suicide by parent(s) and by the child him/herself. This is supported by other negative associations between household size or complexity and self-harmful behaviours. Thus the effects of “overcrowding” in Indigenous households deserve greater attention in the identification of risk factors in these samples.
3. While overcrowding may in other respects be detrimental to physical health and educational progress, it may be necessary to take into account the supportive influence of extended family relationships provided by complicated Indigenous households in minimizing self harm.
4. Higher academic ratings and the marital status of birth parents do not appear to be generally important effects when the other variables have been accounted for.

5. The effect of higher levels of parental contact with the school (not included in the predictors here) was explored (see the Excel Sheets in the Data Archive) and deserve further study. A high proportion of parent contact appears to have been a response to behaviour problems at school, so that this item may be a “proxy” marker of risk of self harm.
6. Appreciable Effect Size values for the “threatens suicide” item (i.e. Cohen’s ‘d’ well over 0.26 for the pre minus post difference and .34 for the pre minus 6 months follow-up score) suggest that the program may contribute to a reduction in this form of problem behaviour. The marginal Cohen’s ‘d’ value of .20 for the “threatens self-harm” item is also important for the same reason. The slight and non-significant increase in perceptions of “feeling sad” on the child self-report scale are difficult to explain, but may be associated with problems of reliability and validity of the scale itself.

**General Caution:** Because of the high levels of multicollinearity interdependence among the predictors here, and given the small size of the sample (N=28), it is important to distinguish between definite and indicative effects, as shown by the estimates of statistical significance. Multicollinearity results in instabilities in the parameter estimates, while small sample sizes (esp. with only .05 levels of confidence) may predispose the analyst to committing Type I errors (i.e., rejecting a true null hypothesis).

See Appendix Correlation Matrix on Excel Workbook file in Data Archive.

## 6.8 Summary and Conclusions

The results of the evaluation of the Tiwi trial of Exploring Together may be summed up according to the three hypotheses:

**Hypothesis I:** *That the inventories employed in the Exploring Together Program are valid, stable and reliable instruments for assessing and monitoring child/pupil problem behaviours across treatment groups in the Tiwi context.*

1. The normal distribution of items with referred samples indicates that the instruments are sound for evaluative purposes but probably not for diagnostic purposes since positive skewedness is high in the general population.
2. The parent and teacher instruments show high relative stability and reliability on all raters (child self-report scales abandoned)
3. Internal consistency of parent and teacher scales was exceptionally good – very high *Cronbach’s alpha* values throughout.
4. Structural stability / construct validity based on factorial structures is problematic: this is not a major issue given good distribution; there is debate in the literature about the appropriateness of factors on the parents’ scale.
5. “Problem” Scales (“Is this a problem for you?”) may need to be redeveloped or dropped for cross-cultural samples.

**Hypothesis II:** *That the test data generated by the parent, teacher and child inventories employed in the Exploring Together Program will show that child/pupil exposure to the Program has resulted in a measurable reduction in perceptions of the frequency and significance of problem behaviours.*

6. Gains in child behaviour were measured by parent and teacher Intensity and Problem Scales – as measured both by Cohens *d* and ‘t’-test over a number of trials, rater types and cross-cultural contexts, and modes of assessment.
7. There is evidence of substantial effect from participation in the referral and assessment process as well as in the program proper – non-treatment effects are indicated by the drop in scores between referral and program commencement in the Original Scale studies and for the waiting list group in the Revised Scales. There is evidence of continuing improvement of behaviour six months after completion.

**Hypothesis III** *That the patterns of response of parents, children and teachers to the Exploring Together Program will be predictable from a knowledge of their background characteristics.*

8. Covariate effects are patchy and inconsistent both on inventory scores and on gains. These indicate general differences in responsiveness to the program, with boys showing higher levels of perceived behaviour change albeit from a higher initial level of problem behaviour than girls.
9. There emerged clear “simple structure” factorial patterns in the “risk factors” and family relationships aspects of family background for the Original (referred) sample, though this was not typical of the Validation (random, non-referred) sample.
10. “Overcrowding” and other household and family-related terms need to be examined in cross-cultural context: both their effect and their factorial structures deserve further analysis based on a larger cross-cultural sample.
11. Further research is indicated in the area of covariate effects, since these findings suggest the possibility of unique patterns of clustering of risk, family and household structure variables among remote, Indigenous populations.

In summary, the instruments showed high levels of internal consistency and test-retest reliability, as well as internal structural stability in the Teacher scales. Clear differences emerged however, between the distributional properties of the measures for a referred, rather than a randomly selected sample. This difference also showed up in the factorial solutions of derived “risk” and “structural” dimensions of family background. Together, these discrepancies indicate the potential for the instruments to be used as a specialised set of measures for evaluating in-program behaviour change, rather than for diagnostic purposes (such as might include a recommended set of cut-off points for referral purposes) for the general population of primary school-age children. Above all, this approach vindicates the utility of a sensitive, though rigorous, application of classical test theory in the Tiwi context.

This exhaustive analysis has revealed consistent and measurable gains from participation in the Exploring Together Program, which appear to embrace all aspects of participation from referral through program delivery to the six-month follow up assessment.

## **7. Program Outcomes and Future Directions: Integrating Prevention in Health and Education Services**

### **7.1 Ngaripirliga'ajirri: Contextualizing intervention**

In 2004, an Aboriginal woman with some experience in leading initiatives funded by the NT Government said that it was not possible to undertake rigid or structured interventions in Aboriginal communities: in her view, program implementers needed to allow things to develop according to local notions of time and agency.

The experience of Ngaripirliga'ajirri is that, while program implementers do need to be flexible and responsive to local conditions in order to contextualize any intervention, it is not only possible, but it is desirable to implement structured interventions consistently over time. This means insisting on a degree of rigidity, in the sense of maintaining those relatively non-negotiable elements of timing and regularity of delivery, and crucial features of the “treatment” approach, without which its replication and, where appropriate, attribution of measured outcomes, can not be achieved. The view that Aboriginal culture is not compatible with structured interventions runs counter to the need to develop evidence about the effectiveness of measures to respond to important social issues.

Nevertheless, the regimentation of something approaching a quasi-experimental design using validated questionnaires seems to be at odds with the communicative structures, the understandings and the relationships characteristic of contexts such as that studied here. They impose heavy demands on all participants. For these reasons, their capacity to measure outcomes of the program – or rather, conclusions about just which outcomes they do measure - must be viewed with some caution. They are a complex artifice embedded within the process of the program and giving structure to it; just what they contribute to the intervention and how well they measure changes caused by it remain complex questions.

The social and cultural context of intervention in Aboriginal communities does pose very significant challenges for organized group work of the kind described in this report. The team only developed its capacity to respond effectively to the contributions of Tiwi participants to the group sessions over some time. The process of engagement of Tiwi people in the project as team members, as parents, as teachers, also required considerable trial and error. The implementation of any intervention design rests on informal communicative processes between personnel and their clients which, by definition, need to be much more responsive to context than formal interactions governed by structured protocols, questionnaires and other elements of method. These have some of the characteristics of a ritual which creates information in a highly selective way. In a similar sense, the change mechanisms attributed to the program are not reducible to these key elements of the intervention, but rather express the totality of interacting processes of communication which are capable of generating a response.

The development and delivery of any intervention cannot be treated as though its implementation is independent of the social relationships and processes which enable practitioners to come together, to form relationships between themselves and their subjects, and to learn to engage effectively with persons and institutions in the community context. From the standpoint of formal research methodology, these are often treated as inessential to the intervention and as requiring of themselves no further investigation. However, these processes underpin those informal, uncodified social and cultural competences without which it is not possible to situate the intervention in the community or to generate an appropriate level of interest and response among community members.

These influences are no doubt already evident in some of the findings reported in Chapter 6. They are also evident in the general response of children to the program, with and without parental involvement. The problem may not be maintenance of the structure of the intervention as such, but rather the difficulty of understanding what it taps into in terms of communicative processes and human relationships

## **7.2 Sustainability and Capacity: Health and Education Services**

This section situates Ngaripirliga'ajirri in the context of community services, particularly health and education on the Tiwi Islands. It examines the outcomes of the program in terms of capacity building, and the prospects of sustaining this program as part of a community based preventive strategy.

The sustainability of a program is dependent on many factors, of which some of the most important are the availability of recurrent funding, adequate institutional support and community support, probably in that order<sup>19</sup> (Hawe et al. 1997; Shediak-Rizkalla 1998; Steckler 1989). The sustainability of an early intervention program such as Ngaripirliga'ajirri is therefore likely to depend on its ability to achieve some degree of integration with established health and community services, including the community schools. This should occur both on the basis of improved articulation with the processes and the needs of those services (for example, through the referral and assessment of children, reporting to schools on outcomes, joint development of complementary strategies, access to specialized services, and so on), and on the basis of the outcomes of the intervention program itself, which are considered desirable for health, psycho-social and educational outcomes.

### **The sustainability of Ngaripirliga'ajirri in the Tiwi context**

By the end of 2003, the Tiwi adaptation of Exploring Together had been successfully run over nine terms at schools on Bathurst and Melville Islands. The program had secured strong support from schools and teaching staff, and had been able to consistently maintain working processes to function throughout that time. Child attendance was close

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<sup>19</sup> While community support is the lead principle in legitimating or justifying new interventions, in practice most interventions are initiated by departmental policy and funding commitment, sustained by practitioner commitment and institutional support and related inducements, with community support or lack of support only able to significantly influence the ongoing development of a program after a considerable lag.

to 100% and parental attendance had been maintained at a level sufficient to enable the program to function according to its objectives over the nine terms. However, the key question is whether the output of a committed team can be translated into a model for ongoing delivery of services and interventions. Under what conditions might a program like Ngaripirliga'ajirri be sustainable?

Ngaripirliga'ajirri was a freestanding program funded by special purpose grants. Although administered by the then lead healthcare organization on the Islands. The program was not integrated into universal health service delivery, nor into the work of the mental health service and was therefore not supported by recurrent health funding. Similarly, although collaborating closely with the three main Tiwi primary schools, it was not integrated into their management and funding frameworks. Staff in the team operated independently of both health and education personnel, although consulting them for referral of children to the program, for evaluation purposes and to secure additional services where needed.

While conferring a high degree of autonomy on the program delivery team – which can have advantages, particularly during the development stage - this structure imposes major constraints on the transfer of capacity and on the sustainability of the intervention. When the funding is no longer available, the organization is faced with the need to terminate the program, unless there has been a concerted strategy to re-fund it, or to transfer and integrate the delivery of the program within existing service frameworks. This entails a review of strategic objectives and management of work practices, and has implications for the recruitment and training of staff.

The embedding of a preventive program like Ngaripirliga'ajirri in existing service frameworks is certainly not impossible. However, it is a major undertaking in its own right, and requires strong managerial-organizational support by service providers at the community level. Ngaripirliga'ajirri lacked this kind of support and was therefore brought to a close in 2004 when its funding expired. By the end of this period, an able team of Tiwi and non-Tiwi people had been built up. The Tiwi personnel were redeployed within the newly formed Tiwi Islands Health Services to work with the mental health and environmental health teams pending the recommencement of funding. This has not yet happened. One of the Tiwi Group Leaders has been employed at the Jinarni Childcare Centre at Nguiu and has since commenced to work with the Let's Start early intervention program. Of the non-Tiwi participants, only the evaluation team leader has been able to continue to work within this field on the Tiwi Islands, the manager and project officer having moved to other employment.

While there were some important continuities after the conclusion of Ngaripirliga'ajirri, it is of concern that the skills developed within this program may dissipate as an accessible body of organizational experience. In the education sector, the program achieved very little transfer of capacity to the schools. The health sector, as outlined, has absorbed the employment of some of the program's personnel, but has absorbed nothing of the program rationale or method.

The functioning of a program like Exploring Together in mainstream urban and rural settings depends to a significant extent on the availability of supportive services and agencies (schools, welfare agencies, mental health services). These may be able to provide direct support for the delivery of the program as well as providing services which complement its operation, for example specialist referral options, or alternatives to the program itself. Institutional support of this kind is all the more desirable in the remote community setting where there is a lack of many specialist services or alternative interventions: it might be expected that the development of complementarity and collaboration within health and education services could enhance the capacity to sustain preventive activity. The following sections examine existing services in health and education with a view to considering the potential to embed a program like Ngaripirliga'ajirri in these service frameworks.

### *The Tiwi Schools*

There are a number of aspects of school functioning which affect the development and delivery of a school-based program. Firstly, there is high turnover of non-Tiwi staff in all schools, but this was particularly true of principals in the NT Government schools from 2000 to 2004. During the development and duration of the program, there were more than four principals at Pirlangimpi Primary School, three principals at Milikapiti Primary School, and in addition, frequent turnover of teaching staff. At the Catholic Education Centres at Nguiu, there is also fairly frequent turnover among non-Tiwi Teaching staff, but overall there appears to have been greater continuity than in the two Melville Island Schools. The high turnover of staff affects the development and running of the early intervention program in two main ways.

Firstly, school principals are critical to the maintenance of institutional support for the program and the general level of collaboration between the program and the school. The temporary stay of one uninterested principal at Pirlangimpi, for example, was one of the factors which contributed to the failure to complete the program in term 1, 2003, despite interest by community leaders, parents and some teachers. There needs to be collaboration when referrals are sought, access to staff meetings, access to rooms and access to information on attendance, held by the school.

Secondly, teaching turnover can affect the ability to achieve consistent ratings of student behaviour over time. Referrals are often made by teachers who will not be teaching the children during the term when the program is running, and for the same reason, teachers rating the child's behaviour at program commencement may not feel that they have seen the child long enough to properly assess behaviour. Thus staff turnover can affect the reliability of pre- and post-intervention and follow-up behaviour ratings which are essential to the program's evaluation. It may also influence the selection of children for referral to the program, given that newer teachers may experience problems that those with longer teaching experience among Tiwi do not.

As noted above, the role of Tiwi persons as teachers and principals is prominent in the Catholic Schools, while Tiwi persons have at best ancillary roles in teaching, and no role at all in management in the government schools on Melville Island. Unlike the Catholic Education Office, DEET does not recognize the teaching qualifications received by Tiwi

teachers at Batchelor Institute of Indigenous Tertiary Education (BIITE). As a consequence, relations between Tiwi and non-Tiwi teachers in the different school systems vary considerably and may affect the nature of input into the program by teachers. In the Nguuu schools, Tiwi teachers are, generally speaking, sufficiently confident to enter into discussion with the program team in their own right. In the Melville Island schools where Tiwi are employed as teaching aides, this is usually not the case, unless a strong working relationship has been established by a particular non-Tiwi teacher and a particular Tiwi aide. It is the team's experience that they are marginal within the system and lack the confidence and the responsibility to engage independently on issues of concern to the program. This does not mean that there are no differences between the nature of input into elements of the program by Tiwi and non-Tiwi teachers at the Nguuu Schools. However, there is also variation between individual teachers of *all* origins in terms of their capacity to engage with the program.

In general terms, the higher level of Tiwi community participation, and the higher level of responsibility accorded Tiwi teachers in the Catholic schools system at Nguuu can have a positive bearing on the functioning of some elements of the program. This is also partly a function of size and continuity of management. The turnover of principals and teaching staff in the smaller Melville Island schools has meant that there has been limited consistency of policies concerning the involvement of Tiwi persons either as staff or as parents over time. Practice is significantly shaped by the few non-Tiwi teachers who stay for longer periods. This is not a comment on educational or social outcomes, but rather on the institutional supports available for development of consistent early intervention and behaviour management practices involving Tiwi as staff.

#### *School-based Behaviour Management and Student Services*

The Northern Territory Department of Employment, Education and Training (DEET) and the Catholic Education Office have policies concerning behaviour management, and processes whereby teaching staff can access support services to assess behaviour problems or other sources of difficulty in the classroom and to provide support for staff.

At Nguuu, the Assistant Principal at MCS conducted behaviour management classes for some children from time to time. There was a group of senior Tiwi called the *Milimika Group* which provided assistance to the school in relations with parents and in supporting the school's strategy to secure attendance and deal with specific problems. There were no programs specifically for students from 12 – 14 years at Xavier CEC. Towards the end of the period of Ngaripirliga'ajirri, a youth diversionary program has involved youth and some primary school children in various activities, including after-school daycare and some classroom activity.

Services are provided by the *Students' Services Branch* of DEET. These provide for community visits on request. During the evaluation period, the departmental allocation of time was as low as one visit per school per term. Procedures allow for observation and assessment of only those children present at the time of the visit with no ability to observe children's conduct over time, or to assess school-external factors and influences on behaviour, to contact parents, and so on.

In both Catholic and government schools, staff reported either not knowing how to access student support services (both new staff, and some experienced staff), or having tried to access services and failing to do so. During the course of development of Ngaripirliga'ajirri, there were many specific instances where teachers in both Catholic and NT DEET schools reported that they were unable to access specialized behaviour management expertise. These involved children behaving violently or disruptively, in some cases over sustained periods, and included both primary and post-primary children. On a number of occasions, the project team was approached by teachers to either step in to respond to difficulties, to provide a service modeled on the Ngaripirliga'ajirri program, or to otherwise assist them. These requests have resulted in formulation of management plans for whole classes on two occasions, the running of a modified program for a small group of referred teenagers in term 1 of 2003, and some cases of follow-up in response to individual difficulties.

Some requests for assistance were made by inexperienced teachers teaching on the Tiwi islands as their first assignments. Centrally provided services were manifestly inadequate to assist them. They did not distinguish between individual children whose behaviour warranted intervention and the general difficulties of classroom management. One of the teachers concerned struggled to manage the classroom, so much so that some or all of the children were out in the yard at play in most teaching sessions. Requests for assistance by teachers frequently referred to children who fell through the net, in the sense that they were not able to participate in Ngaripirliga'ajirri, usually through the team's inability to identify adults willing to take responsibility, as discussed earlier.

The need and the demand to develop the capacity for effective behaviour management and family engagement programs in the Tiwi Schools is clear. Centrally provided services are unable to support community-based programs of school-based behaviour intervention and prevention in the remote communities. Conversely, the effectiveness of centrally provided services is limited by the lack of staff and programs based in the schools able to provide assessments, to follow-up and liaise with families, to track pupils across communities, and facilitate access to available services.

If Ngaripirliga'ajirri were integrated with school-based behaviour management strategies it would provide much stronger assessments of children and the causes of difficulty, and assist teachers with developing strategies for individual children, and assist centrally provided services to target their efforts more appropriately than at present. It could contribute to ongoing follow up of children and contact with their families –this presently can not occur. As a part of a whole-of school strategy, it would provide the capacity to follow up youths who fall through the net as described, and assist with access to a range of appropriate services. A school based program of this kind would be able to provide better support for externally provided services which in turn could focus on specialized assessments of children for Inclusion Support Assistance, assistance with classroom strategies for teachers experiencing difficulty, or specialized counseling.

#### ***Tiwi Health Services, Mental Health and Youth Services***

The Tiwi Health Board had established a mental health team consisting of a mental health nurse employed on a consultancy basis, and a team of five Aboriginal Mental Health

Workers, located at Nguiu, with provision for travel to the other communities as needs arise (Robinson and Harris 2005). The mental health team had been largely funded by a number of short term special purpose grants from a range of funding sources, and has continued to operate under the Tiwi Islands Health Services which replaced the Board from 2004. Clinical mental health services are mainly provided by general practitioners and nurses in the health centres with support from the AMHWs and the mental health nurse. Overall, the focus of the mental health team is to provide assistance with crisis intervention and follow-up support for clinical service provision. The follow-up work involves counseling of individuals, assistance with personal welfare needs, some brokerage with agencies, and some discussion with family members about the availability of supports.

The services of the AMHW team are not available on a consistent basis outside of Nguiu. Moreover, the team's training is limited and its capacity to consistently deliver programs to mitigate high levels of self harm, impacts of violence on children and partners surviving violence by or death of a spouse, is questionable. It has no capacity to deliver structured interventions in response to specific needs – for example, domestic violence, substance misuse, or postvention after suicide or other deaths. The style of work is largely reactive and, faced with the urgency of adult problems, child mental health or wellbeing issues are given little or no consideration.

In the course of delivery of the Ngaripirliga'ajirri program, the team encountered couples, families and individuals who would likely benefit from other forms of assistance. These included some marriages under severe strain or instances in which family conflicts were such that counselling of the parents and children either in parallel with or as an alternative to participation in Ngaripirliga'ajirri may have been desirable. A number of families were struggling with adjustments after a suicide or a homicide, often enough of a parent. In others there was high stress associated with suicide threats and violence by family members, with specific urgent difficulties and perhaps elevated risk of harm to children. In Ngaripirliga'ajirri, it was not always possible to deal adequately with these issues, since the focus of the group work was always partly constrained by the program's structure, which is guided by the focus on the children and by the need to accommodate all members of the group. In the context of delivery of the original Exploring Together program in major urban centres such as Melbourne, all such cases would be referred to alternative marriage counseling or mental health services capable of working with individuals or individual families or couples. There is a strong case for further developing a closer collaborative association between mental health and clinical services and a preventive program such as Ngaripirliga'ajirri. The lack of these sorts of services in the Tiwi communities is a major deficiency.

Apart from mentorship by the clinical mental health nurse, the AMHWs have no access to culturally appropriate training in counseling attuned to the specific needs of the Tiwi setting. In 2004, courses provided by Batchelor Institute of Indigenous Tertiary Education (BIITE) had not been accessed for over two years, and in any case provide no training in counseling addressing specific health and psycho-social issues (Robinson and Harris 2005). The clear need for a program of professional development relating to

counseling, therapeutic work with families and general prevention is not likely to come from TAFE programs provided by BIITE or other providers. With appropriate professional input, it can be provided in the community itself, through exposure to a program like Ngaripirliga'ajirri.

The view that indigenous health care workers should bring their cultural and local knowledge and communicative skills to bear on mental health and related problems seems commonly to be accompanied by the assumption that these skills and cultural knowledge of themselves do not need to be, or can not be developed and enhanced. This view is misguided. The experience of Ngaripirliga'ajirri is that work within a structured program over time produces significant improvements in the ability of Tiwi people to undertake culturally informed analyses of problems of individuals, to assess patterns and processes within families which contribute to individual distress or difficulty, and those which might be sources of resilience.

**Notes on cost effectiveness and sustainable delivery.**

In a year in which the program was delivered to 7-8 children in each school term, a total of approximately 30 per year, Ngaripirliga'ajirri cost \$210,000<sup>20</sup>. This amounts to a cost of around \$7000 per child participating in the program. Within the constraints of this project, there is no possibility to determine whether this expenditure would be justified by future savings for society or benefits to individuals in either the short or the long term as a result of participation in the program. However, it seems likely that this cost would need to be reduced in order to render the initial expenditure palatable to government providers.

It must be borne in mind that this estimated cost is not intrinsic to the Ngaripirliga'ajirri program model, but is to a significant extent a reflection of the circumstances of its delivery as a freestanding grant-funded program. Exploring Together has been delivered in a number of urban and rural contexts across Australia, on the basis of commitments of time and resources by agencies without application of dedicated funds. In 2004, the Ngaripirliga'ajirri model itself was adopted by a team based at the Yaandina Family Centre in Roebourne, WA. This was initiated by personnel from Roebourne who had seen the Tiwi team present a paper at a conference. After provision of initial training in Roebourne by the Tiwi team, the program has been successfully run for over a year with very limited funds, delivered by staff employed at a number of affiliated agencies in this small, poorly serviced, rural town. In other words, a high level of institutional commitment by organizations working in education and welfare can see the program delivered with only limited additional funds. Delivery time is not much more than one day per week for team members. Effective community engagement, including the required forms of engagement with families and schools, is demanding, but would be generally compatible with existing duties for personnel in appropriate designations.

In other words, the challenge of preventive programs like Ngaripirliga'ajirri is to free up

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<sup>20</sup> This includes \$150,000 per annum for which the program was funded for delivery by Tiwi Health Board, and an additional \$60,000 per annum for a proportion of the costs of inputs of the evaluation team which contributed substantially to program delivery.

the basic resources to deliver the program as one of a range of functions in education, health and community welfare. Some additional personnel with specific expertise may have to be employed in relatively resource-starved contexts: however, this should be seen as a strategy to reinforce the capacity to deliver a range of needed services of which Ngaripirliga'ajirri could form part. As outlined, at present, the Tiwi Schools have at best very limited capacity to implement structured behaviour management strategies or strategies for active engagement of parents and families. Tiwi are employed as liaison officers on a less than consistent basis: they do little more than chase troublemakers *away from* school, perhaps try to bring some truants *to* school, and may assist teachers with some contact with parents; they receive no training and do not form part of any strategy to engage parents and families in a supportive way. These under-resourced and under-supported liaison positions should be reworked into a program aiming to engage families, to mentor and follow-up at risk children; they should be supported by appropriate training, and be able to work as part of a team delivering Ngaripirliga'ajirri across three communities.

On the Tiwi islands, there are challenges associated with running the program effectively in three remote communities at once. It is desirable to have community members from each location in the facilitation team; their local knowledge is essential to the development of good contacts with families and schools in each community. Appropriate program management can provide guidance and mentorship for Tiwi personnel and trainees, and is able to encourage Tiwi team members to take responsibility for important activities. However, with arrangements to date, this has proven difficult to manage, given that the program has only run in one community at a time, so that there was little or no activity at the two communities where the program was not running during any one term. It is therefore necessary to continuously support local team members in each community. The ability to maintain equal levels of services across communities of unequal size and capacity is a problem faced by the Tiwi Islands Health Service – and other government agencies - on the Islands and is a widespread problem across the regions of the NT. These limitations of a stand-alone program can be overcome by integration within school programs, collaboration between schools, and between education and health sectors. The costs of the stand-alone program referred to at the beginning of this section would be divided between four schools and the health sector; if existing resources can be substantially incorporated to deliver these services, these costs may be reduced and the number of services provided expanded.

A community based program of early intervention on the Tiwi islands would entail the following resources:

1. Tiwi and non-Tiwi staff employed at each school with duties in behaviour management and family engagement, including delivery of Ngaripirliga'ajirri in 1-2 terms per year
2. Involvement of mental health workers in each community in the delivery of Ngaripirliga'ajirri, and in the provision of complementary counseling and health promotional services
3. Manager of school-based programs to coordinate collaboration between schools and between health and education personnel for program delivery

4. Access to DEET Student Services and relevant medical services
5. Evaluation support and performance monitoring: DEET/DHCS/CDU

The comprehensive strategy would entail the integration of Ngaripirliga'ajirri within a range of complementary functions to provide the following services:

1. Assistance with access to specialist services through referral to paediatric, speech pathology, audiological, psychological and other services
2. Variants of the Exploring Together model for teenagers and their parents or mentors, with referrals from post-primary and primary schools
3. Individually case managed interventions and mentoring for children who cannot gain access to or who are otherwise excluded from Ngaripirliga'ajirri
4. Tracking of mobile children across the Tiwi communities and the mainland, combined with proactive liaison with families to deal with attendance issues
5. Mental health services brought into closer collaboration with school based family support and early intervention programs
6. Individual and family counseling, mental health-related services, for specific problems, including violence, substance misuse, etc.
7. Professional development for teaching and liaison staff; and for mental health workers to develop family support and early intervention skills.

An estimate of the direct benefits of a program like Ngaripirliga'ajirri is almost certain to underestimate of the further benefits which could be gained through its effective integration in health and education services.

### **7.3 Partnerships to Build Capacity in Early Intervention**

It has long been recognized that the NT is seriously under-spending in child and family services. In 2000-2001, it spent 25% of the Commonwealth Grants Commission's recommended standardized expenditure assessment, the lowest in Australia. In 2003, expenditure over the last 6-8 years appeared to have both absolutely and relatively declined in this area. Despite recent efforts to shift the focus, health and welfare services alike remain overwhelmingly oriented to "acute", curative and remedial care, and, in child welfare, to statutory child protection functions (NTCOSS 2003). Early intervention and prevention in the area of child developmental wellbeing are now somewhat better supported in policy, but remain seriously under-resourced.

Many parenting or early intervention programs currently in existence draw substantially on existing social and professional resources. This may include access to professional psychiatric, psychological or other relevant experts, and the ability to co-opt staff with relevant experience whose time can be made available for development and delivery of the program. Such personnel may include teachers, social workers, nurses, psychologists, medical practitioners or others, who are employed within existing service delivery arrangements. In general, when such persons have been identified, training can be provided and the program can then be delivered in a standard format. Programs such as Triple P and Exploring Together can be delivered efficiently by service providers and community members, often without substantial dedicated funding. However, their

reliance on universal service provision has meant that there has been only limited adaptation of the program for indigenous families and children, and consequently only marginal utilization in remote communities, as well as indigenous rural and urban fringe settings.

It is by now clear that the chief determinant of the ability to integrate and to sustain preventive programs within community based services is the policy commitment to overcome the weak organizational capacity of the latter. This means in particular a commitment and a capacity to support innovative deployments of resources, whether in mental health care, community services or in preventive services aimed at supporting families and children. The chief problem for existing services is their lack of capacity to design and implement strategies for developmental prevention within existing resources and priorities. With their orientation to acute care, as in health, or, in education, the routine exclusion of engagement with community processes or with families from “school business”, these models currently operate in such a way as to exclude structured prevention from the ordinary processes of interaction with their clientele. There is a tendency to “roll out” standard packages with little integration into or change in routine core business. Any attempt to change this orientation would mean examining existing positions and duties and redirecting some priorities. It may mean re-recruiting to some positions at higher levels or with an altered mix of duties – within a strong design. It means above all that there needs to be commitment to the planned implementation and support of well theorized, structured interventions either in place of or within the current service models.

The Ngaripirliga’ajirri project demonstrates that it is possible to develop a well theorized, culturally appropriate and effective program of which could form the basis of a coordinated early intervention strategy at schools in collaboration with education and health services on the Tiwi Islands. Moreover, it is clear that the cost would be merited in view, not only of the treatment benefits of the program, but of the expanded capacity in behaviour management, family support and other services which could be achieved.

### **Research and Development Partnership**

It is a significant achievement that, over 30 months, the Tiwi program has been able to maintain the multi-group structure of the Exploring Together Program and that it appears to continue to be viable in the Tiwi context. The intervention model presupposed a significant investment in on-the job training and in the development of an appropriate balance of indigenous and non-indigenous, and professional and lay expertise within the delivery team. Any attempt to establish a structured, targeted intervention in remote indigenous communities inevitably comes under severe pressure to tailor its approach to convenience, to reduce the anxiety inherent in confronting people about attendance and regular timelines, about responding to questionnaires, and in dealing with difficult, sensitive themes about family life in dialogue with parents. These pressures are generally well-known. Many practitioners appear to think that they can be dealt with by some kind of “culturally appropriate strategy”, usually by showing flexibility and adopting whatever seems to work on a day-by-day basis, or whatever will generate positive feedback from community members. While flexibility is important, if this is at the expense of structure it

potentially undermines the capacity to maintain a consistent, professional focus and weakens the orientation to outcomes of treatment whose effectiveness can be measured and interpreted.

In the case of Ngaripirliga'ajirri, the research strategy underpinning the development and delivery of the program suffered many limitations, as described. However, the research proved to be essential to the development and adaptation of the program and to the team's ability to implement and sustain it over three years. The program as delivered between 2000 and 2003 could not have been sustained to a professional standard without a strong partnership between the delivery and research teams. The core program disciplines are those which have been reinforced or defined as essential by the research program, while at the same time, the collaborative partnership with personnel employed by the Tiwi Health Service has been critical to the reconceptualization of the program for the Tiwi cultural context.

This touches on a major question for the Australian Government and States or Territories as funders of similar interventions. Remote and urban indigenous communities alike are increasingly searching for programs to deal with psycho-social problems affecting families and individuals, including targeted programs for those at risk, and programs specifically aiming at early intervention and prevention. There is a very powerful case to be made for rigorous research, development and evaluation strategies to accompany many of the programs which will be funded over coming years.

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## Appendix 1: Technical Appendix Chapter 6

**Item and Scale Properties** The measures of frequency distributions tend to be in the absolute stability column. These are: the *mean*, which is the sum of the set of measurements or scores, divided by the number of measurements in the set, sometimes called the arithmetic mean and is a measure of central tendency. *Variance*, *skewedness* and *kurtosis* are different measures of the spread or dispersion of measurements, rather than their central tendency. These are, in order, the second, third and fourth moments about the mean, that is to say, the average deviation of the measurements from the mean raised respectively to the second, third and fourth power (i.e. the sum of each score minus the mean squared, cubed or raised to the fourth power and then divided by the number of items). The square root of the variance is called the standard deviation and is a valuable property of the normal distribution, since the 95% of scores fall between plus two and minus two standard deviations from the population mean. This property applied to the means of samples of a given size provides us a basis for estimating the confidence levels of a sample mean.

Through what is known as the “*standard error of the mean*” (SEM) we can make a 95% estimate of the mean (as for Fig. 8). where the population mean would probably lie –i.e. about plus or minus two standard errors from the sample mean. *Skewedness* is an index of the tendency of measurements to clump at either the upper end of the scale (*negative skewedness*) or at the bottom end (*positive skewedness*). Kurtosis refers to the flatness or peakedness of a distribution. Beyond extremes of flatness (*platykurtosis* or negative kurtosis) can be so much spread that we have bimodality, a polarisation between two measures of central tendency within the same distribution. Extreme peakedness (*leptokurtosis* or positive kurtosis) would have almost every measurement stacked up on a mean score. The standard confidence levels can also be estimated for these properties as well, on the assumption that either positive or negative values which are greater than about twice their standard errors indicate an underlying distribution which is non-normal. This should not worry us too much, but it might be useful for diagnosing the underlying characteristics of our sampled population, as well as indicating whether the item or scale actually discriminates at all among the individual measurements.

**Internal Consistency of Inventories** A commonly used composite index of the internal consistency of a scale (more valid than simply taking an average of item-total correlations) is the Cronbach-Alpha coefficient, which takes values varying from 0 to 1 and which should be over .95 as a threshold value. Scale distributions will be influenced by the level of item-total correlation. Since a total score is made up of a combination of the unique contribution of each item and what it shares with other items (its covariance), the greater the degree of intercorrelation among the items, the greater the variance. Hence, a scale where every individual scored either high or low on all the items would have high item-total correlations and a very high total score variance (it would also tend to be bimodal). In cases where individuals do not answer all the items, it is usual to calculate the Alpha value on only those individuals who have measures for all items. This is known as “listwise” elimination, which can reduce the size of a sample if there is a lot of missing data. Its alternative is “pairwise” elimination, where we might simply wish to look at the pattern of correlation among pairs of measures based on a sample of individuals who have answered just those two items.

**Scale Reliability** Correlational measures are also very useful for examining the relationships between the inventories. In the most obvious case, they can indicate the strength of relationship between inventory scores across observational points. This is sometimes called the test-retest criterion for determining the reliability of a scale (relative stability), though here it would be used as a measure of the consistency of the distribution of individuals’ scores between say a pre- and post-treatment ratings. Because this correlation is based on standard scores, it cannot indicate a difference in mean values, which are set at zero in both distributions. At a more fundamental level, we should first assess the stability of the items rather than the relative position of the individuals. Reliability, or the consistency of scales to yield similar ranking of individuals between two points in time, was indexed by the *Pearson coefficient of correlation* ( $r$ ), which is the square of the averaged sum of the cross-products of the standard scores or two distributions. This simply means that if we multiply these two scores for each individual, add them up, divide the total by the number of people in the group (minus 1) and then take the square root, we will have this measure of association. This will vary from  $-1$  (perfect negative correlation) to  $+1$  (perfect positive correlation). A standard score is calculated by subtracting the sample mean from the individual score and dividing by the standard deviation and is therefore a handy way of comparing scores based on different scales (e.g. an individual’s relative income in pounds and dollars) The standardisation of all scores transforms a distribution so that it has a mean of 0 and a

standard deviation of 1. Coefficients of correlation form the basis of nearly all the measures of association which assume that the trait being measured has an underlying bivariate-normal distribution

For assessing the **structural stability** of the subscales or dimensions of an inventory or scale, the Pearson correlation coefficient is particularly important, since it forms the basis of factorial or component analysis. By the technique, a matrix of inter-item coefficients is manipulated to produce a solution that isolates their underlying or latent affinity a small number of factors or components. The correlation between individual items and these basic dimensions are shown and the amount of variance explained by that factor in all the observed data can be calculated (the sum of the squared correlations or factor loadings). The number of factors to be extracted can be set by the researcher, or left for the program to decide, on the basis of their level of statistical significance. An important option for the researcher in factor or component analysis is the type of “rotation” which is imposed on the solution, which refers to the degree of intercorrelation which is permitted among the extracted factors or components.

For simplicity’s sake, as well as for consistency with the method of Burns et al. (p.456, 1995), it was decided to opt for a principal component analysis with varimax rotation for four-factor solution. This ensures that the correlation among the factors will be zero and that the program will solve for a maximum of four underlying components (sometimes called factors), the number found by Burns et al. and other researchers for the SESBI. In deriving a satisfactory solution, researchers usually strive for what is known as “simple structure”, which occurs when all the items have significant loadings on a single factor. When the items are grouped, we should then see a neat alignment of the significant factor loadings of groups of similar items on each of the single factors and on that factor alone. Depending on the class of behaviours that are so clustered, these factors can be taken as an empirical basis for confirming the construct validity of subscales or independent dimensions, such as aggressive towards others or emotional and oppositional behaviour, or internalising vs externalising polarities within the total scale. Although the degree of independence is sometimes a matter of dispute, as we have seen in the case of the Eyberg parental inventory (ECBI), the factorial method does at least provide some basis for testing the competing claims. Given the choice of rotation methods, we might ask whether a particular solution fits the model of uncorrelated or correlated dimensions or factors, given the clarity and simplicity of the structure or loadings that it produces.

There is another aspect to this analysis, in the derivation of new variables in the form of factor or component scores. Since an individual’s score of a factor is determined by weighting of responses to items that contribute to the factor, a unique factor score can be calculated (usually by regression methods). These factor scores can then be treated as composite variables which can be expected to have greater internal consistency than the scores for the total scale. These scores are valued for providing more specific information for predicting individual behaviours (discriminant stability). The intercorrelations of the factors are therefore another form of determining the relative stability of two applications of an inventory and are positioned as such in the relevant Table. These intercorrelations could also provide a screening analysis for identifying the affinities among the various factors, even though they may not be in the same order of importance in terms of the amount of variance they independently explain.

The most basic question we should be able to ask, before means for the inventories are compared or their summed scores correlated, is whether they exhibit structural stability in their factorial solutions. In other words, does the same inventory yield a similar pattern of factor loadings (item-component correlations) across two points in time? The results of factor analysis are therefore a more precise measure of the internal structural stability of a scale than the rank order of the item-total correlations. Not only do they provide a basis for confirming the underlying dimensions of a scale, they also give us a detailed picture of the way that each item, as mediated by that dimension, contributes to a total score. There are several measures of comparison of factorial loadings.

Another, more qualitative approach, is what might be called the traditional method of confirmatory factor analysis whereby the different patterns are simply compared descriptively. Both approaches will be used here. While the coefficient of congruence will tell us whether the factors loadings are similar independent of their underlying construct validity, the traditional confirmatory method will tell us whether the degree to which the pattern of loading makes sense in terms of some theoretical principle whether it be to the internalising vs externalising distinction or the various dimensions identified by Burns *et al.* in their analyses of the ECBI and the SESBI.



## Appendix 2: Original Scales

### Exploring Together

#### Parent Interview Form

**Child details:**

ID Code:	Date of Birth:
Name:	Age:
Address:	Phone No.:

**Parent details:**

Marital Status: \_\_\_\_\_

Mother	Father
Name:	Name:
Occupation:	Occupation:
Yimunga:	Yimunga:
Murrakupuni (country):	Murrakupuni (country):

**Care Giver Details:**

Name:	Name:
Occupation:	Occupation:
Yimunga:	Yimunga:
Murrakupuni (country):	Murrakupuni (country):

**(A) Presenting Problems:**

1. Your child's school had identified the following difficulties. Please indicate how often these problems occur at home:

1 = never      2 = rarely      3 = sometimes      4 = often      5 = always

Referred Problem	Rating				
1. _____	1	2	3	4	5
2. _____	1	2	3	4	5
3. _____	1	2	3	4	5

2. Please list any other difficulties you may have noticed, and rate how often these problems occur:

1 = rarely      2 = sometimes      3 = often      4 = always

Problems identified by parent	Rating				
1. _____	1	2	3	4	5
2. _____	1	2	3	4	5
3. _____	1	2	3	4	5

**(B) Pregnancy and Birth:**

1. Did the mother take medicine, use drugs or drink alcohol during pregnancy?	YES / NO	(YES) What kind:
2. Did the mother smoke during pregnancy?	YES / NO	(YES) How many each day:
3. Was it a usual delivery?	YES / NO	(NO) What kind? (i.e, caesarian)
4. Was the child premature?	YES / NO	(YES) By how many months?
5. Was child adopted or fostered?	YES / NO	(YES) at what age did this occur?

**(C) Milestones**

**Milestone**                      **Any problems associated with milestone**

1. Rolled over	
2. Sat up alone	
3. Crawled	
4. Walked	
5. Talked	
6. Became toilet trained	
7. Stopped bedwetting	

**(D) Family History**

1. Any major separations from child?	YES / NO	(YES) Describe:
2. Parents separated?	YES/NO	When? Permanent?
3. Deaths in family that affected the child?	YES / NO	(YES) Details:
3. House moves?	YES / NO	(YES) How many:
4. Are parents still together?	YES / NO	Length of relationship:
5. Has there been any violence between parents?	YES / NO	(YES) Details Witnessed by child?:
6. Do parents drink alcohol?	YES / NO	How much per day?
7. Do parents use drugs?	YES / NO	(YES) What and how much per day?
8. Suicide attempts	YES/NO	Details Witnessed by child?
9. Mental Health problems	YES/NO	Who? Relation ship to child?

10. Other major health problem in family?	YES/NO	
---	--------	--

**(E) Child's Health and Treatment**

1. Major Injury	YES / NO	(YES) What type?
2. Major Illness	YES / NO	(YES) What type?
3. Hospitalization	YES / NO	(YES) Why?

**(F) Other Information**

1. What does child like doing? \_\_\_\_\_
2. What does child dislike doing? \_\_\_\_\_
3. What things do you and your child do together? \_\_\_\_\_
4. What things is your child good at? \_\_\_\_\_

# Teacher Rating Form

(adapted from the Sutter-Eyberg Student Behavior Inventory Revised)

Teacher's Name: \_\_\_\_\_ Did you contribute to the completion of this questionnaire: Y / N

Hours per week spent with child \_\_\_\_\_

Teacher's Name: \_\_\_\_\_ Did you contribute to the completion of this questionnaire: Y / N

Hours per week spent with child \_\_\_\_\_

Child's Name \_\_\_\_\_ Child's Gender \_\_\_\_\_ Child's Date of Birth (age) \_\_\_\_\_

Parents \_\_\_\_\_ Class \_\_\_\_\_ Today's

Date \_\_\_/\_\_\_/\_\_\_

Child's academic rating? (please tick the appropriate box):  poor  average  good

How often have the child's parents contacted the school?:  never  seldom  often

Reason(s) \_\_\_\_\_

**Directions:** Below are a number of statements that describe children's behavior. Please,

1. Circle the number that best describes **how often** your student **currently** shows the behavior
2. Circle either **YES** or **NO** to indicate whether the behavior **currently is a problem for you**

		How often does this occur with this student?						Is this a problem for you?	
		Never					Always	YES	NO
1.	Misses school	1	2	3	4	5	6	YES	NO
2.	Has temper tantrums	1	2	3	4	5	6	YES	NO
3.	Obeys school rules on his/her own	1	2	3	4	5	6	YES	NO
4.	Sulks	1	2	3	4	5	6	YES	NO
5.	Starts trouble with other students	1	2	3	4	5	6	YES	NO
6.	Acts withdrawn	1	2	3	4	5	6	YES	NO
7.	Lies	1	2	3	4	5	6	YES	NO
8.	Acts frustrated with tasks	1	2	3	4	5	6	YES	NO
9.	Wastes time in obeying	1	2	3	4	5	6	YES	NO
10.	Acts bossy with other students	1	2	3	4	5	6	YES	NO
11.	Gets angry doesn't get his/her own way	1	2	3	4	5	6	YES	NO
12.	Spends time alone	1	2	3	4	5	6	YES	NO

13.	Interrupts teacher	1	2	3	4	5	6	YES	NO
14.	Abuses or hits teacher	1	2	3	4	5	6	YES	NO
15.	Has difficulty entering groups	1	2	3	4	5	6	YES	NO
16.	Is easily distracted	1	2	3	4	5	6	YES	NO
17.	Has difficulty accepting criticism	1	2	3	4	5	6	YES	NO
18.	Fails to finish tasks or projects	1	2	3	4	5	6	YES	NO
19.	Acts happy	1	2	3	4	5	6	YES	NO
20.	Answers back to teachers	1	2	3	4	5	6	YES	NO
21.	Argues with other students	1	2	3	4	5	6	YES	NO
22.	Whines, cries for things	1	2	3	4	5	6	YES	NO
23.	Physically fights with other students <sup>1</sup>	2	3	4	5	6	YES	NO	
24.	Argues with teachers about rules	1	2	3	4	5	6	YES	NO
25.	Refuses to speak	1	2	3	4	5	6	YES	NO
26.	Interrupts other students	1	2	3	4	5	6	YES	NO
27.	Has trouble waiting turn	1	2	3	4	5	6	YES	NO
28.	Talks too much	1	2	3	4	5	6	YES	NO
29.	Loses things needed for activities	1	2	3	4	5	6	YES	NO
30.	Is a dreamer	1	2	3	4	5	6	YES	NO
31.	Fidgets or squirms in seat	1	2	3	4	5	6	YES	NO
32.	Listens to instructions	1	2	3	4	5	6	YES	NO
33.	Is easily annoyed	1	2	3	4	5	6	YES	NO
34.	Humbugs others on purpose	1	2	3	4	5	6	YES	NO
35.	Has trouble paying attention	1	2	3	4	5	6	YES	NO
36.	Plays with others?	1	2	3	4	5	6	YES	NO
37.	Acts stubborn if told to do something <sup>1</sup>	2	3	4	5	6	YES	NO	
38.	Complains about being teased	1	2	3	4	5	6	YES	NO
39.	Refuses to obey unless threatened	1	2	3	4	5	6	YES	NO
40.	Is noisy	1	2	3	4	5	6	YES	NO
41.	Acts before thinking, impulsive	1	2	3	4	5	6	YES	NO

# Parent Rating Form

(adapted from the Eyberg Child Behavior Inventory by Sheila Eyberg, PhD)

Your Name \_\_\_\_\_ Relationship to  
child \_\_\_\_\_

Child's Name \_\_\_\_\_ Child's Gender \_\_\_\_\_ Child's date of  
Birth \_\_\_\_/\_\_\_\_/\_\_\_\_

Today's Date \_\_\_\_/\_\_\_\_/\_\_\_\_

How well is your child doing at school? ( tick box):  poor  average  good  don't know

How often have you contacted your child's school?:  never  sometimes  often

Reason(s) \_\_\_\_\_

**Directions:** Below are a number of statements that describe children's behavior. Please,

1. Circle the number that best describes **how often** your child **currently** shows the behavior
2. Circle either **YES** or **NO** to indicate whether the behavior **currently is a problem for you**

## How often does this occur with your child?

	Never						Always		
1. Wastes time in getting dressed	1	2	3	4	5	6	YES	NO	
2. Has poor manners	1	2	3	4	5	6	YES	NO	
3. Does chores when asked	1	2	3	4	5	6	YES	NO	
4. Acts stubborn if told to do something	1	2	3	4	5	6	YES	NO	
5. Argues with parents about rules	1	2	3	4	5	6	YES	NO	
6. Lies	1	2	3	4	5	6	YES	NO	
7. Gets angry when doesn't get own way	1	2	3	4	5	6	YES	NO	
8. Physically fights with brothers and sisters	1	2	3	4	5	6	YES	NO	
9. Answers back to adults, backchats	1	2	3	4	5	6	YES	NO	
10. Whines, cries for things	1	2	3	4	5	6	YES	NO	
11. Has temper tantrums	1	2	3	4	5	6	YES	NO	
12. Does not come home on time at night	1	2	3	4	5	6	YES	NO	
13. Obeys house rules on own	1	2	3	4	5	6	YES	NO	
14. Yells or screams	1	2	3	4	5	6	YES	NO	
15. Abuses or hits parents	1	2	3	4	5	6	YES	NO	
16. Breaks or loses toys and other things	1	2	3	4	5	6	YES	NO	
17. Teases, starts trouble with other children	1	2	3	4	5	6	YES	NO	
18. Threatens suicide	1	2	3	4	5	6	YES	NO	
19. Plays with friends	1	2	3	4	5	6	YES	NO	
20. Cries easily	1	2	3	4	5	6	YES	NO	
21. Steals	1	2	3	4	5	6	YES	NO	
22. Plays with sisters and brothers	1	2	3	4	5	6	YES	NO	

23.	Always wants attention	1	2	3	4	5	6	YES	NO
24.	Interrupts	1	2	3	4	5	6	YES	NO
25.	Is easily distracted	1	2	3	4	5	6	YES	NO
26.	Humbugs others on purpose	1	2	3	4	5	6	YES	NO
27.	Is happy to play alone	1	2	3	4	5	6	YES	NO
28.	Has difficulty concentrating on things	1	2	3	4	5	6	YES	NO
29.	Acts before thinking	1	2	3	4	5	6	YES	NO
30.	Misses school	1	2	3	4	5	6	YES	NO
31.	Acts shy	1	2	3	4	5	6	YES	NO
32.	Does not obey until growled at	1	2	3	4	5	6	YES	NO
33.	Complains about being teased	1	2	3	4	5	6	YES	NO
34.	Threatens or attempts to hurt self	1	2	3	4	5	6	YES	NO
35.	Physically fights with friends	1	2	3	4	5	6	YES	NO
36.	Acts jealous of others	1	2	3	4	5	6	YES	NO
37.	Sulks	1	2	3	4	5	6	YES	NO
38.	Finishes what he/she is doing	1	2	3	4	5	6	YES	NO
39.	Is easily annoyed	1	2	3	4	5	6	YES	NO
40.	Is a dreamer	1	2	3	4	5	6	YES	NO

## Child Rating Form

Child's Name \_\_\_\_\_ Interviewer \_\_\_\_\_ Today's

Date \_\_\_\_/\_\_\_\_/\_\_\_\_

**Directions:** Below are a number of questions that concern children's thoughts, behaviors and emotions. Children are asked to rate how often these traits occur. Circle the number that best describes **how often** the child **currently** believes they display the trait.

		How often does this occur?					
		Never					
		Always					
1.	Do you waste time getting dressed for school	1	2	3	4	5	6
2.	Are you scared that you will make mistakes	1	2	3	4	5	6
3.	Do you tell lies or stories that aren't true	1	2	3	4	5	6
4.	Do you like yourself	1	2	3	4	5	6
5.	Do you argue with your parents about rules	1	2	3	4	5	6
6.	Do you get angry when you don't get your own way	1	2	3	4	5	6

7.	Do you fight with your brothers and sisters	1	2	3	4	5	6
8.	Do you answer back to adults, backchat	1	2	3	4	5	6
9.	Do you cry for things	1	2	3	4	5	6
10.	Do you get picked on	1	2	3	4	5	6
11.	Do you come home on time at night	1	2	3	4	5	6
12.	Do you daydream	1	2	3	4	5	6
13.	Do you get frightened when you are at school	1	2	3	4	5	6
14.	Do you yell at or hit your parents	1	2	3	4	5	6
15.	Do you tease, start trouble with other children	1	2	3	4	5	6
16.	Do you steal things	1	2	3	4	5	6
17.	Do you play with your sisters and brothers	1	2	3	4	5	6
18.	Do you worry that someone might hurt you	1	2	3	4	5	6
19.	Do you promise to, or try to hurt yourself	1	2	3	4	5	6
20.	Do you play with friends	1	2	3	4	5	6
21.	Do you break things when you are mad	1	2	3	4	5	6
22.	Do you feel sad	1	2	3	4	5	6
23.	Do other people get you into trouble	1	2	3	4	5	6
24.	Do you get wild	1	2	3	4	5	6
25.	Do you act stubborn when told to do something	1	2	3	4	5	6
26.	Do you feel bad about what you do	1	2	3	4	5	6
27.	Do you like to play by yourself	1	2	3	4	5	6
28.	Can you do things without help	1	2	3	4	5	6
29.	Do you talk with mum and dad about your worries	1	2	3	4	5	6

## Appendix 3: Validation Scales

### Ngari-P (Exploring Together)

Parent Interview Form Validation Study *CODES*

Program: \_\_\_\_\_ School term: \_\_\_\_\_ Year: \_\_\_\_\_ Community: \_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_

Child's name: \_\_\_\_\_ Interviewer: \_\_\_\_\_

Parent/Carer's name: \_\_\_\_\_ R'ship to child: \_\_\_\_\_

Child's Date of Birth: \_\_\_/\_\_\_/\_\_\_ Child's Age: \_\_\_\_\_

#### A) Child's birth parents:

Mother	Father
Name:	Name:
Work:	Work:

#### B) Child's caregivers (if different to above):

Female Carer	Male Carer
Name:	Name:
Relationship to child:	Relationship to child:
Work:	Work:

Caregiver: 0=both parents 1=mother 2=father 3=grandmother 4=grandfather 5=aunty  
6= uncle 7=aunty&uncle 8= both grandparent 9=stepmother

#### C) Child's Family Background:

1. Birth parents separated?	YES / NO 1 / 0	CURRENT Only Par_sep
2. Child living away from birth parents?	YES / NO 1 / 0	Since When? living String since_wh
3. Deaths the child has been aware of?	YES / NO 1 / 0	Close Family? Y/N deaths Y=1 N=0 88=N/A
4. Violence between parents?	YES / NO	Frequent/Occasional; Current/Past? Vio_par

	1 / 0	viol_typ 1=freq_curr      3=freq_past 2=occ_curr      4=occ_past
6. Violence towards the child?	YES / NO 1 / 0	Vio_chi
6. Do parents drink alcohol?	YES / NO 1 / 0	Some/Big Mob alcohol alc_amt S=1    B=2    None=0
7. Do parents use drugs?	YES / NO 1 / 0	Some/Big Mob drugs drug_amt S=1    B=2    None=0
8. Exposure to suicide?	YES/NO 1 / 0	Family Group Y/N? exp_suic fam_suic Y=1    N=0    N/A=88 Did Child Witness Y/N? witness Y=1    N=0    N/A=88
9. Mental Health problems	YES/NO 1 / 0	Close family Y/N? M_h_prob Clse_fam Y=1    N=0    N/A=88

**D) Child's Household Composition:**

Name	Age	Relationship to child

Adults#    Children#    Total#

**E) Pregnancy and Birth:**

1. Problems during pregnancy?	YES / NO 1 / 0	(YES) prob_preg    p_detail
2. Problems during birth?	YES / NO 1 / 0	(YES) prob_bir    b_detail
3. Did the mother use drugs/alcohol during the pregnancy?	YES / NO 1 / 0	(YES) use    u_detail
4. Have there been any worries about	YES / NO	(YES) worries    w_detail

the child's growing up?	1 / 0	
5. Child has major illness?	YES / NO 1 / 0	Current/Past illness Ill_when c=1 p=0 N/A=88

## Teacher Rating Form

(Adapted from Sutter-Eyberg Student Behaviour Inventory-Revised, 1999; third revision for validation 26.2.04)

Program/Waiting-List Term: \_\_\_\_\_ Year: \_\_\_\_\_ Community: \_\_\_\_\_

Today's Date: \_\_\_/\_\_\_/\_\_\_

Interviewer: \_\_\_\_\_

Child's Name: \_\_\_\_\_

Boy / Girl Date of Birth: \_\_\_/\_\_\_/\_\_\_ Grade: \_\_\_\_\_

Teacher 1: \_\_\_\_\_

Completed form: Y / N

Tiwi / Non-Tiwi

Teacher 2: \_\_\_\_\_

Completed form: Y / N

Tiwi / Non-Tiwi

Child's Academic Rating:  poor  average  good

Does parent contact school?:  never  sometimes  often

Reason: \_\_\_\_\_

Is the child missing school?  never  sometimes  often  very often

**Directions:** Below are a number of statements describing children's behaviour. Please both:

- Circle the number that best describes **how often** your student **currently** shows the behavior; **AND**
- Circle either **YES** or **NO** to indicate whether you believe that the behavior **currently is a problem in the class room**

		How often does this occur with this student?						Is this a problem?	
		Never					Always	YES	NO
1.	3 Obeys school rules on his or her own	1	2	3	4	5	6	YES	NO
2.	4 Sulks, angry face and won't talk	1	2	3	4	5	6	YES	NO
3.	5 Starts trouble with other children	1	2	3	4	5	6	YES	NO
4.	6 Acts withdrawn, shy or frightened	1	2	3	4	5	6	YES	NO
5.	7 Lies, doesn't tell truth	1	2	3	4	5	6	YES	NO
6.	8 Gets cranky or upset if can't do work	1	2	3	4	5	6	YES	NO
7.	9 Wastes time doing something when told	1	2	3	4	5	6	YES	NO
8.	20 Looks sad, unhappy	1	2	3	4	5	6	YES	NO
9.	11 Gets angry when can't do what wants to do	1	2	3	4	5	6	YES	NO
10.	12 Plays alone, has no friends	1	2	3	4	5	6	YES	NO
11.	13 Interrupts teacher	1	2	3	4	5	6	YES	NO
12.	2 Has temper tantrums, gets wild	1	2	3	4	5	6	YES	NO

13.	19 Does not finish his/her work	1	2	3	4	5	6	YES	NO
14.	14 Swears at teacher	1	2	3	4	5	6	YES	NO
15.	17 Finds it hard to do one thing right through1	2	3	4	5	6	YES	NO	
16.	18 Doesn't like criticism, or being told	1	2	3	4	5	6	YES	NO
17.	21 Talks back to teachers, backchats	1	2	3	4	5	6	YES	NO
18.	10 Acts bossy with other students	1	2	3	4	5	6	YES	NO
19.	22 Argues with other children	1	2	3	4	5	6	YES	NO
20.	23 Cries for things	1	2	3	4	5	6	YES	NO
21.	24 Gets into fights with other children	1	2	3	4	5	6	YES	NO
22.	25 Argues with teachers about rules	1	2	3	4	5	6	YES	NO
23.	26 Quiet, won't speak or talk up when asked1	2	3	4	5	6	YES	NO	
24.	27 Interrupts other children	1	2	3	4	5	6	YES	NO
25.	28 Has trouble waiting turn	1	2	3	4	5	6	YES	NO
26.	a Seems to have worries	1	2	3	4	5	6	YES	NO
27.	30 Breaks things on purpose	1	2	3	4	5	6	YES	NO
28.	31 Daydreams in class	1	2	3	4	5	6	YES	NO
29.	32 Fidgets or squirms in seat (can't sit still)1	2	3	4	5	6	YES	NO	
30.	33 Does not listen when told what to do	1	2	3	4	5	6	YES	NO
31.	34 Is easily annoyed, gets cranky easily	1	2	3	4	5	6	YES	NO
32.	b Appears uninterested, doesn't join in work1	2	3	4	5	6	YES	NO	
33.	40 Refuses to obey until threatened	1	2	3	4	5	6	YES	NO
34.	37 Has trouble playing with other children 1	2	3	4	5	6	YES	NO	
35.	38 Stubborn, won't do things when told	1	2	3	4	5	6	YES	NO
36.	39 Complains about, blames others for trouble1	2	3	4	5	6	YES	NO	
37.	42 Does things without thinking first	1	2	3	4	5	6	YES	NO
38.	41 Makes noise, disturbs others in class	1	2	3	4	5	6	YES	NO
39.	35 Humbugs others on purpose	1	2	3	4	5	6	YES	NO
40.	16 Does not join in with other children	1	2	3	4	5	6	YES	NO
41.	36 Has trouble paying attention in class	1	2	3	4	5	6	YES	NO
42.	15 Hits, threatens to hit teacher	1	2	3	4	5	6	YES	NO
43.	29 Talks too much	1	2	3	4	5	6	YES	NO

## Ngaripirliga'ajirri Parent Rating Form

(Adapted from Eyberg Child Behaviour Inventory, 1999; third revision, validation study 2004)

**Program/ Waiting-List**      **Term:** \_\_\_\_\_ **Year:** \_\_\_\_\_ **Community:** \_\_\_\_\_

**Today's Date:**      \_\_\_/\_\_\_/\_\_\_      **Interviewer:** \_\_\_\_\_

**Child:** \_\_\_\_\_ **Boy / Girl**      **Date of Birth:** \_\_\_/\_\_\_/\_\_\_ **Grade:** \_\_\_\_\_

**Parent/Carer:** \_\_\_\_\_ **Relationship to child:** \_\_\_\_\_

**How is child going with schoolwork:**       **poor**       **average**       **good**

**Parent/Carer's contact with school:**       **never**       **seldom**       **often**

**Reason:** \_\_\_\_\_

**Directions:** Below are a number of statements describing children's behaviour. Please both:

- Circle the number that best describes **how often** your student **currently** shows the behavior; **AND**
- Circle either **YES** or **NO** to indicate whether the behavior **currently is a problem for you**

	<b>How often does this occur with your child?</b>						<b>Does this make you worry?</b>	
	Never					Always	YES	NO
1. Refuses to go to school 1	1	2	3	4	5	6	YES	NO
2. Is rude, not polite 2	1	2	3	4	5	6	YES	NO
3. Does jobs/work when you ask 3	1	2	3	4	5	6	YES	NO
4. Tells lies 6	1	2	3	4	5	6	YES	NO
5. Gets angry when can't do what wants1	1	2	3	4	5	6	YES	NO
6. Fights with brothers and sisters 8	1	2	3	4	5	6	YES	NO
7. Talks back to grown ups, backchats 91	1	2	3	4	5	6	YES	NO
8. Cries for things 10	1	2	3	4	5	6	YES	NO
9. Gets wild, boils up 11	1	2	3	4	5	6	YES	NO
10. Stays out late at night 12	1	2	3	4	5	6	YES	NO
11. Swears at parents 13	1	2	3	4	5	6	YES	NO
12. Yells, screams, uses loud voice 14	1	2	3	4	5	6	YES	NO
13. Hits, threatens to hit parent 15	1	2	3	4	5	6	YES	NO
14. Breaks or damages things on purpose1	1	2	3	4	5	6	YES	NO
15. Starts trouble with other children 171	1	2	3	4	5	6	YES	NO
16. Says he will kill him/herself	1	2	3	4	5	6	YES	NO
17. Has trouble playing with other children1	1	2	3	4	5	6	YES	NO
18. Stubborn, won't do things when asked 1	1	2	3	4	5	6	YES	NO

19.	Steals 21	1	2	3	4	5	6	YES	NO
20.	Wants attention, talks a lot (reverse)1		2	3	4	5	6	YES	NO
21.	Breaks in when others are talking/ playing1	2		3	4	5	6	YES	NO
22.	Finds it hard to do one thing right through1	2		3	4	5	6	YES	NO
23.	Humbugs others on purpose 25	1	2	3	4	5	6	YES	NO
24.	Has one or more good friends	1	2	3	4	5	6	YES	No
25.	Does things without thinking first	1	2	3	4	5	6	YES	NO
26.	Misses school 28	1	2	3	4	5	6	YES	NO
27.	Acts shy or frightened, hides	1	2	3	4	5	6	YES	NO
28.	Do you have to growl at him/her?	1	2	3	4	5	6	YES	NO
29.	Clings or sticks to parent	1	2	3	4	5	6	YES	NO
30.	Blames other children for trouble	1	2	3	4	5	6	YES	NO
31.	Promises or tries to hurt him/herself1		2	3	4	5	6	YES	NO
32.	Fights with other children 34	1	2	3	4	5	6	YES	NO
33.	Gets jealous of others 35	1	2	3	4	5	6	YES	NO
34.	Angry face, won't talk, sulks 36	1	2	3	4	5	6	YES	NO
35.	Complains is picked on by other children1	2		3	4	5	6	YES	NO
36.	Cares about, helps other people	1	2	3	4	5	6	YES	NO