



Ngaripirliga'ajirri: The implementation of Exploring Together on the Tiwi Islands

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Abstract

From 1999 to 2003, the Tiwi Health Board, in partnership with University researchers, undertook the implementation of the *Exploring Together Program* as part of a preventive strategy in response to serious social problems affecting young Tiwi people, their parents and families. The implementation of the program necessitated engagement of Tiwi communities in ways that were responsive to issues such as the local context, culture, and patterns of family life, and at the same time maintained a commitment to the core elements of the intervention as a structured intervention requiring relatively advanced professional skills to achieve consistent high standards of delivery. The delivery team included both Tiwi community members and non-Tiwi personnel. They redeveloped a number of areas of content of the program to ensure adequate recognition of important themes in Tiwi parenting and family life while retaining the key elements of structure and content. The adapted program – *Ngaripirliga'ajirri* – showed many highly promising outcomes and, within the limits of the research design, indicated that a structured early intervention program can be effective in remote Indigenous contexts.

Keywords

Indigenous mental health, Aboriginal mental health, children, parents, parenting, implementation, culture, evaluation, program evaluation

Introduction

In professional and policy discussions about Aboriginal health among activists, service providers and even policy makers, one frequently encounters the view that what is needed is already known, that further research is unnecessary and that it is time to act. There is not only impatience with research, but also a widespread view that stringent research designs are inappropriate. Indeed, many commentators argue that structured interventions *per se* are not appropriate in Aboriginal communities, that they conflict with concepts of time, relationship and obligation, the 'rhythm' of community life. In a discussion about early intervention, a senior Aboriginal person who has initiated numerous

programs on behalf of the Northern Territory Government asserted that rigid programs are not compatible with Aboriginal community life, with 'the Aboriginal way'. Consistent with this widely held view, most family-focused interventions developed for Indigenous peoples, particularly in remote areas, are either more or less loosely structured community programs of talk and activity, largely untheorised in terms of therapeutic rationale; or they are reactive, individualised crisis interventions, such as child protection casework or, sometimes, mental health work. Lacking are programs with both firm professional input and culturally well-grounded methods and practices with a basis in theory and evidence.

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The *Exploring Together Program* (ETP) is based on developmental principles and in content and approach resembles a number of well known interventions aiming to improve children's social-emotional learning and parenting (Littlefield, Trinder, Woolcock & Burke, 2000; Webster-Stratton, Reid & Hammond, 2004). Children showing some indication of behavioural and/or emotional difficulties are referred to the program by teachers, family members or others and attend with their parents in groups of 6 parent-child pairs over a 9-10 week school term. Its most distinctive characteristic is the multi-group structure: this consists of work with parents and children in an interactive group session followed by groups for children and parents in separate, parallel sessions facilitated by trained group leaders. The program is not primarily informative, didactic, or problem-focused, but incorporates a group-therapeutic dimension which is held to be a key change mechanism (Littlefield, Story, Woolcock et al., 2005). The evaluative component of the program consists of the use of standard instruments for referral and initial assessment and to measure changes in children's behaviour, wellbeing and parenting as a result of participation in the program.

In terms of the practicalities of organisation and delivery, ETP is a relatively complex and demanding program. The separate elements of the multi-group structure target different albeit related issues, and require the development of specific skills on the part of group leaders. It requires significant effort to coordinate referrals from schools and other sources, to secure consents and conduct interviews before bringing parents and children together in groups. Parents often need some support to secure their availability – whether in terms of childcare for young children, contact with an employer to secure time off, or transport to the program. In general terms, in service delivery contexts such as Darwin and the Tiwi Islands, where there is no ready niche for the program's operation, a high level of community engagement among schools, practitioner groups and community members is needed to promote and maintain support for it.

This paper will describe the adaptation and delivery of ETP in the Tiwi Islands – as an

example of a targeted preventive intervention for parents and children – will report selected aspects of the evaluation project and consider some key outcomes of the program.

Exploring Together and the Tiwi context

The Tiwi are a traditionally-oriented Aboriginal people who live in four communities on Bathurst and Melville Islands, approximately 80 km to the north of Darwin in the Arafura Sea. Around 2,500 Tiwi live on the Islands, while from 300-400 people of Tiwi descent live in Darwin and other mainland communities at any one time. The majority of residents are Tiwi native speakers, although Tiwi also are generally fluent in English, including variants of Aboriginal English. Characteristics of Tiwi culture, kinship and family systems have been documented in anthropological literature from the mid twentieth century (Goodale, 1971; Hart & Pilling, 1960; Venbrux, 1995).

The Tiwi Health Board was a community controlled health service that had been established to manage health services for all of the communities of the Tiwi Islands in 1997 (Robinson, Bailie, Togni & Kondalsamy-Chennakesavan, 2001). Two years later, the Board began to respond with urgency to the alarming rates of self-harm and suicide among young Tiwi, to concerns about teenage parenting and to breakdown of parental responsibility in the communities. A life skills program linked with the Board's mental health team was established to promote youth leadership and to provide crisis intervention for those young people in immediate difficulty. The Board also sought to develop a longer term preventive strategy in the hope that a program working with parents and primary school aged children could reduce these patterns of difficulty on children at home and at school. The Board had become aware of ETP through information provided by the Northern Territory Department of Health and Community Services (NT DHCS, then Territory Health Services, THS) and made a decision to adopt the program as part of its multi-level preventive strategy. Funding for a three year trial was received from the office of then Minister for Health and Ageing, Dr Michael Wooldridge. The program ran from 2000-2004, with extension funding for 2003-2004 from *beyondblue: the national depression initiative* and the

Commonwealth Government's Stronger Families and Communities Strategy. The Cooperative Research Centre for Aboriginal and Tropical Health engaged the authors to work with the Tiwi Health Board to develop and evaluate the program (Robinson & Tyler, 2006). Aspects of the intervention have been described in relation to changes in Tiwi family systems, Tiwi parenting styles and the epidemic of suicide on the Islands (Robinson, 2005).

The Tiwi Health Board recruited a program manager who was to run the program with the assistance of Tiwi personnel. One of the originators of ETP, Dr Carol Woolcock, travelled to the Tiwi Islands to provide training over two days. However, it soon became clear that this was an insufficient basis to develop and sustain the program in anything like its original form. The evaluation partnership with the University gave the Board's team access to additional skills to complement those of the Board's community-based team and enabled the program to be run as far as possible according to its original design.

The research literature relating to preventive programs in health and education draws attention to the tension between adherence to program principles, or program 'fidelity', and the need to effectively adapt and contextualise programs in specific social and cultural settings. Numerous approaches have been proposed to explain and resolve these tensions (Biglan, 2004; Hill, Maucione & Hood, 2007; Pentz, 2004). At the level of evaluation of outcomes, program fidelity is the technical requirement to hold constant all components, including the quality and quantity of all inputs during delivery over time, as a precondition of attribution of causality of outcome. Program manuals based on theory and evidence combined with implementation based on high standards of training and mechanisms for continuous quality assurance are the standard requirements for maintenance of fidelity (Pentz, 2004). Ideally, adherence to program fidelity means that the modification of programs should be resisted, except where the modifications can be tested to achieve the same high quality of evidence of effectiveness as the original program. However, the reinvention of a program – without deviation from core principles – may be necessary in some circumstances where the intended effect can not be achieved or sustained

(Bauman, Stein & Ireys, 1991). Program adaptation may be planned and tested; this usually occurs where there is a high degree of control of circumstances of delivery and evaluation. In many cases, adaptation is unplanned and not formally tested; often reflecting a lack of control over circumstances of delivery, including the ability to adequately secure uniform adherence to program principles among front line practitioners (Elliott & Mihalic, 2004)¹ and to resist political or ideological pressures to adapt or limit objectives, as outlined in the introductory paragraph of this piece.

There is powerful support for the view that the cultural competence of design and delivery of intervention programs is a critical factor in the sustainability of a program and of its effectiveness over time (Shonkoff & Phillips, 2000). The Tiwi are a community of former hunter-gatherers with strong adherence to traditional practices of kinship and – as far as we can ascertain – childrearing, while the Tiwi language remains their first language alongside English. This means that, for the implementation of ETP on the Tiwi Islands, the question was not whether the program would need some degree of adaptation, but how it would occur, and indeed how far it would need to go (Robinson & Tyler, 2005). Cultural competence may be a feature of the process of engagement of persons and the delivery of the intervention – in this case engaging members of a Tiwi language speaking community and building a team to deliver the program which included Tiwi community members; it may also be a feature of the internal processes and content of the intervention, its theoretical assumptions about child development or about therapeutic effects at the level of practice.

The feasibility of the program structure in the Tiwi context is, in the first instance, determined by the willingness of parents to attend the program with their children and participate in the weekly sessions. It is difficult to adhere to regular timetables and many people find the imposition of organised talk with non-Aboriginal persons in meetings or sessions foreign and uncomfortable. Further, delivery of a program in a Tiwi community must avoid paydays, cope with the impact of funerals on community life and with the influence of visitors who arrive in

the communities and make demands on participants without regard for their commitments. For example, group leaders had to become expert in prising parents from their workplace. This had to be done sensitively, without adding to parents' job insecurity, by negotiating release for attendance with employers and gently insisting on this on a weekly basis when forgotten at the workplace. The program also had to respond to the mobility of individuals and families between the Tiwi communities and between the Islands and Darwin. On the one hand, little can be done about this when it occurs and children or parents are suddenly unavailable; on the other hand, the team was able, on a number of occasions, to influence some decisions affecting the capacity of a parent or a substitute to attend.

On the Tiwi Islands, many parents may at first agree to participate, while not having a clear picture of the personal commitment to attend that is expected. As a result, the weekly striving to approach parents and secure their attendance is a day-by-day, session-by-session affair. This is quite different from those mainstream urban settings in which participating parents are self-selecting to the extent that they voluntarily respond to referrals and general program promotion and actively make their own arrangements to attend. Without vehicle and presentation of program personnel to pick up parents before each session, attendance of a majority of Tiwi parents would not be secured. In general, the functioning of the program over time, the visibility of a team consisting of Tiwi and non-Tiwi group leaders, along with positive word-of-mouth comments about the program in the community lead to increasing familiarity and trust between team members and community members, and as a consequence, an acceptable level of attendance, albeit without diminution of the efforts of the team in laying the groundwork week by week. This trust – together with a degree of enjoyment – must be actively built with each new group of parents and children. The viability of the program rests on the pattern of active engagement with parents.

Despite at times substantial perceived pressure to modify, adjust, even abandon key program features, the team committed itself to maintain the program's structure and the key features of

program content. It was able to sustain the multi-group structure of parents', children's and combined groups over a three year period. In addition to the attendance measures outlined, there were adjustments to enable more than one caregiver of a child to attend sessions if required by the primary caregiver: this might mean two spouses attending together, or an aunt or a grandparent attending with a parent. 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 ETP had been run. These relationships were taken into account to some extent when selecting groups, to ensure that there were no major incompatibilities.

The basic framework and much content were retained, but adjusted to take into account literacy levels. The program's emphasis on written homework could not be maintained and the leaders used drawing activity as a basis to elicit conversation in many sessions. However, the program retained the key elements of the thematic content of consequences-based learning; for example, 'Stop-Think-Do' (Peterson & Gannoni, 2000) in the children's group. Additional non-verbal games, activities and role plays were introduced to assist the children who were excessively shy and would not talk, or who lacked the vocabulary to talk about feelings and the consequences of behaviour.

ETP allows for flexible response to the themes and problems of participating families, so that group therapeutic work could remain an underlying dimension of the program's functioning. This was particularly important with reference to issues of grief relating to premature death, suicide, break-up of marriages and other major influences on individuals and on family life. However, the cognitive-behavioural approach to parenting with its emphasis on the logic of punishments and rewards represents the 'platform' on which the therapeutic dialogue with parents unfolds. The central strategy of ETP is the formulation of behaviour management strategies or plans, linked to the ABC of Antecedents, Behaviour and Consequences, exploration of triggers of children's behaviour and of the consequences of parental action or

inaction, rewards and punishments. This remained central to the framework of discussion in the Tiwi parents' group. Parents' families of origin were an inconsequential theme among Tiwi, compared with the exploration of current family processes and interactions, including the role of kin of both spouses in supporting or confounding the primary caregivers' care of children.

The orientation to behaviour management planning can be difficult to sustain 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 group leaders some time to learn how to enter into dialogue with parents about even fairly simple scenarios concerning the consequences of behaviour and parental intervention and response. Secondly, there is a degree of 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 Tiwi parenting styles, attitudes and beliefs; and secondly, in terms of distinctive antecedents and consequences of behaviour in the Tiwi family context.

Formulation of a behaviour management plan 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 was difficult to achieve for many Tiwi parents. The approach may work best in cultures in which parental authority and parental responsibility for a child's behaviour is relatively clear and unambiguous. The possibility of rules, boundaries and limits can be readily defined in the small family setting where the parent has or can achieve sufficient autonomy to consistently pursue a strategy in the household or can be encouraged to do so over time. It is not impossible to operationalise this logic in the Tiwi setting. However, it is certainly difficult to do so for many, if not most parents, given 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 and the network of surrounding kin and households who interact with it in complex ways.

Both in parents' and in combined groups, patterns of family functioning were elicited through drawings, storytelling, questions and quizzes about roles and relationships in the household. Stories about how members interact with each other were sought. Group leaders would ask parents to draw the household and links to other households – grandparents, aunts and uncles, etcetera – as a means of describing how the parents' and children's social networks overlap and diverge. In thus 'mapping' how some of the children's behaviours might play out in the social setting of their extended families, parents could be encouraged to identify their own strategies, and in turn to focus on opportunities for more assertive action within the family in relation to the child, rather than withdrawal from or indifference to the child's behavioural signals. Analysis of individual cases showed that in response to these themes, numerous parents made concerted efforts to change family circumstances to improve their own and their children's situations, with beneficial effects for the child (Robinson & Tyler, 2006, p. 62ff). Other strategies to engage parents in discussion about family functioning, included drawing the households, running mock quizzes about 'Who's Who in the Family', and so on. These not only highlighted parental strategies, but also encouraged parents and children to discuss together the things that happened at home between family members.

The pressures to modify key program elements were not limited to features of the social context affecting attendance or other influences external to the program's operation, but were also internal to it, arising from the interaction between practitioners and participants during sessions of the program. Some of these tensions were related to the life stresses to which many families and children are subject. In many instances, the parents' own behaviour clearly contributed to the child's symptomatic behaviour. This included substance misuse, violence between spouses, marital break-up leading to displacement of the children, suicide threats by a parent, or threats to abandon child or spouse. In short, acknowledgement of the stresses in a child's environment as influences on his or her behaviour brought the group leaders into inevitably difficult terrain in terms of their capacity to draw attention to the impacts of

parental behaviour on the children. Group leaders were often uncertain about how direct they could be in ‘problematizing’ behaviours of household members, including the parents themselves, without being so confrontational that parents might flee the program. There were instances of parental withdrawal from the program which, while not directly explained by them in these terms, nevertheless related clearly to parents’ anxiety about disclosure and the scrutiny of their behaviour during sessions.

The learning by group leaders was progressively consolidated in material and activities used to supplement the ETP manual (Littlefield et al., 2000). However, the learning by staff members and the steady improvement of their communicative competence can not be secured by manuals and materials alone. In the cultural environment of a remote Aboriginal community, crucial learning is ongoing and is based on the formation of relationships, both between co-workers and with their subjects, the parents and children.

Program evaluation

The *Ngaripirliga’ajirri* program for Tiwi primary school children saw over 90 children during its existence and produced important outcomes (Robinson & Tyler, 2006). These were captured by a variety of methods. The evaluation was an important area of adaptation of the program framework, after pilots clearly demonstrated that the existing instruments, such as the Achenbach Child Behaviour Checklist (Achenbach & Edelbrock, 1983) could not be used in this context. The formal evaluation thus centred on the development of a behaviour rating checklist to be completed by parents and teachers seeking to measure changes in internalising and externalising ‘problem’ behaviours, after pilots of a range of existing instruments including the rating scales of Eyberg, Conners and the Beck Youth Inventories (Beck & Beck, 2001; Conners, 1997; Eyberg & Pincus, 2000). Scales were produced for both parents and teachers and asked respondents to rate the frequency of problem behaviours on a 6-point Likert scale. Verbal cues to explain the scale were produced in Tiwi language and Tiwi English. In addition, a child self-report questionnaire was developed with items corresponding to many of those in the parents’

and teachers’ inventories, but with an additional emphasis on internalising behaviours, and items referring to sadness or depressed affect. This was thought to be important, given the high rates of suicide and self harm in the Tiwi communities.

Tiwi team members assisted with development of items and modifications were made in two stages, based on item analysis and further consultation on item constructs. An attempt to employ a waitlist control strategy could not be sustained. A non-referred sample of 48 children was tested at two points one school term apart (weeks 4-6 of term), producing the final modification of the checklist for both teachers and parents (referred to as the ‘validation study’). It produced strong absolute stability, while internal consistency as measured by the Cronbach’s alpha coefficient ranged from .93 to .97 for the teacher scales and from .89 to .92 for the parent scales. An assessment questionnaire provided data on participant demographic, social and relationship characteristics. The final evaluation report provides a full account of development of the scale and analysis of outcomes (Robinson & Tyler, 2006).

Results

Exploring perceived behaviour changes

As shown in Table 1, teacher reports of child behaviours revealed statistically significant declines in problem behaviours between referral and six month follow-up and between program commencement and six month follow-up, with substantial effect sizes (Cohen’s *d*). For parents, the trend to decline in problem behaviour was not statistically significant, with correspondingly lower effect sizes. However, for the teachers’ reports, it was noticeable that there was negligible change over the ten weeks of the program itself, that is, between pre- and post-measures, compared with change during the referral period and between the post-measure and follow-up.

The reasons for this contrast between the strong overall cumulative effect and the lack of pre-post change need further exploration. It should be noted that the intervention effectively commences with referral, at which time there is considerable engagement with all participants. The cumulative effect at six months’ follow-up

Table 1. Paired t-tests and effect size estimates

<i>Original scales - Paired Sample Comparisons, Mean Item Score</i>										
<i>Descriptives - Difference Scores</i>										
<i>Rater and Scale</i>	<i>Mean</i>	<i>SD</i>	<i>SE</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>n</i>	<i>Correl.</i>	<i>p</i>	<i>Cohen's d[^]</i>
Teacher referral – pre	0.46	0.79	0.17	2.74	21	0.01	22	0.42	0.10	0.63
Teacher referral – post	0.56	0.86	0.18	3.13	22	0.01	23	0.43	0.00	0.70
Teacher referral – 6 months	1.10	1.13	0.27	4.15	17	0.00	18	0.03	0.90	1.36
Teacher pre – post	0.08	0.78	0.13	0.60	34	0.55	35	0.61	0.00	0.09
Teacher pre – 6 months	0.70	1.19	0.24	2.88	23	0.01	24	0.15	0.50	0.77
Teacher post – 6 months	0.61	1.15	0.23	2.67	25	0.01	26	0.20	0.30	0.66
Parent pre – post	0.11	0.66	0.11	1.03	38	0.31	39	0.69	0.00	0.13
Parent pre – 6 months	0.19	0.72	0.14	1.39	27	0.18	28	0.59	0.00	0.24
Parent post – 6 months	0.18	0.75	0.14	1.26	26	0.22	27	0.62	0.00	0.21

[^] For these purposes, paired rather than the unpaired *t* values were used in calculating *d*

is a potentially important indication of program effectiveness. However, to what extent may we attribute the observed changes (at least as reported by teachers) to the intervention, and to what extent to a ‘regression to the mean’ or other effects?

Validation study and ‘regression to the mean’

Regression to the mean (not to be confused with regression analysis below) refers to an effect of the tendency of individuals at the extremes of a distribution to record scores closer to the mean on a second or later occasion, independent of any treatment effect. Since the findings above are those of a referred sample, it would be valuable to see whether this effect has contaminated the findings, leading to a commission of the ‘regression fallacy’, whereby ‘the regression effect is mistaken for a real treatment effect’ (Dallal, 2000).

After conclusion of the treatment phase of the program, a non-treatment randomised sample ($n = 48$) of all students in the age cohort of children in Years 4, 5 and 6 was administered a revised version of the original scales twice over a nine week period. The purpose of this ‘validation study’ was to further test the properties of the revised instrument developed for the program. However, this sample can also be treated as a ‘surrogate control group’, in that it allows some comparison between the results of this study and those of the treatment trials, summarised above. It thus provides some insight into the strength of

the treatment effect and a basis for estimating the possible influence of regression to the mean on student problem behaviour scores. A telling indication of a possible regression to the mean effect would consist of a distribution of the pre-treatment scores of the referred group that was significantly skewed towards the lower end of the scale, while those of the randomly selected sample of the validation study showed a more normal or bell-shaped distribution.

A comparison of the two distributions (see Figure 1) indicates that the pattern is just the opposite of that which might have led to a commission of the regression fallacy. In this case, it appears that it is the random sample of the validation study that is positively skewed to the lower problem behaviour mean item score, while the distribution of the referred sample approximates that of the bell-shaped curve. In confirmation of this result, a similar pattern, after smoothing, is evident at the higher-scoring tail of the validation sample distribution of mean item scores.

This comparison suggests that these scales, as adapted to the Indigenous population (and contrary to the findings for inventories standardised on whole populations), tend to discriminate well among the referred sample, but not among the Tiwi student population as a whole. In this case, the interpretation of treatment effect for the referred sample would seem to be far less vulnerable to the distorting

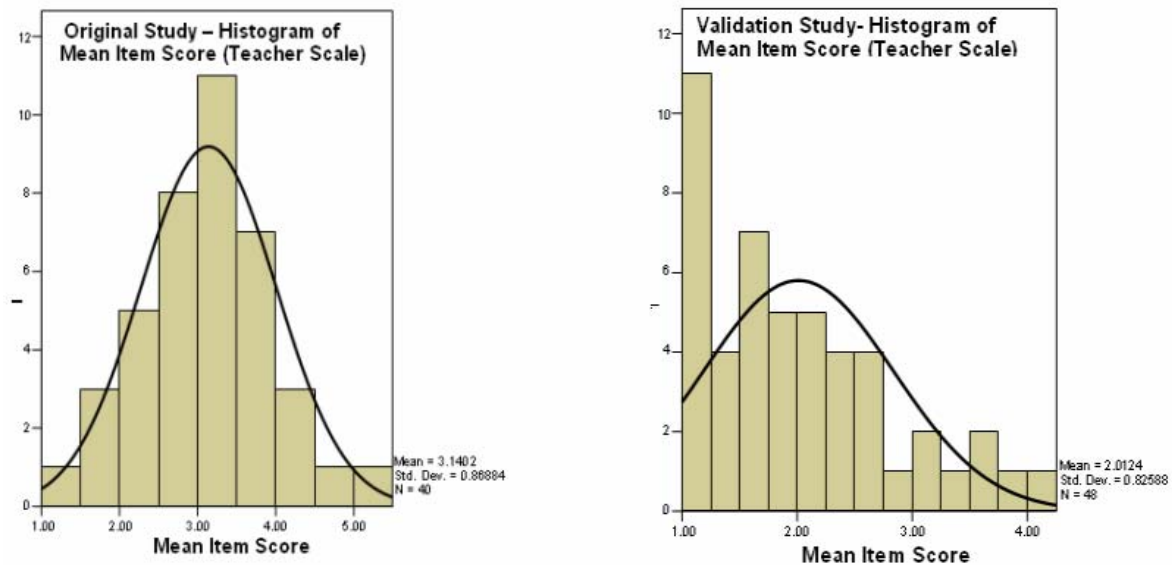


Figure 1. Comparison of distributions of mean item scores of referred and non-referred samples

effects of regression to the mean than if the pattern of distribution of problem behaviour scores were reversed. The interpretation of effect size with this instrumentation was based on changes in the referred sample in its own terms, that is, as a distinctive population in its own right, rather than as an extreme group for which adjustment for regression to the mean may have been appropriate.²

This inversion of the usual pattern of distributions is an interesting outcome, with implications for the specificity of the instrumentation and for its applications in other evaluations in Indigenous contexts (see Robinson & Tyler, 2006, Chapter 6). Although not tested concurrently with treatment, the absence of significant behavioural change reported by both parents and teachers in the validation sample lends support to the interpretation that the gains observed in the original study sample were an effect of treatment (Robinson & Tyler, 2006, Table 13).

Predicting problem behaviours

Consistent with the program strategy outlined above, in which group work focused on household relationships and their links to children's symptomatic behaviours, insights into the predictors and/or determinants of child

difficulty were sought in an analysis of data about family and household arrangements (see Table 2). The analysis is statistically limited and somewhat patchy as a result of the small sample size, but suggestive. For example, household size ('overcrowding') did not appear to be associated with higher levels of measured problem behaviour: if anything, children with higher levels of reported problems tended to be in smaller households.

Household size appeared to have an indicative negative effect (though apparently only marginally significant) 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 and related affect, as in Table 2. These general indicative findings are consistent with findings at the population level (Silburn, Zubrick, Maio et al., 2006) and confirmed our view that it is essential to disentangle the contribution of complex family relatedness within large households and household networks to children's behavioural and developmental outcomes.

The evaluation was constrained by the need to develop and validate instruments while at the same time using them to measure change. The modification of instruments after item analysis

Table 2. Regression analysis of child self-report item, 'Do you feel sad?'

<i>Regression analysis of Original Child Scale Item 22 ('Do you feel sad?') Yes/No[^]</i>					
	<i>Unstandardised coefficients</i>		<i>Standardised coefficients</i>	<i>t</i>	<i>p</i>
	<i>B</i>	<i>SE</i>	<i>Beta</i>		
(Constant)	2.61	0.97		2.69	0.02
Gender	-0.32	0.27	-0.34	-1.17	0.27
TREF academic rating	-0.04	0.18	-0.06	-0.20	0.84
Exposure to death of parent	-0.48	0.34	-0.48	-1.41	0.19
Exposure to family violence	-0.02	0.29	-0.03	-0.07	0.94
Marital status of birth parents	-0.12	0.12	-0.26	-0.99	0.34
No. of people in household	-0.14	0.07	-0.64	-2.04	0.07
Household composition: No. of generations	-0.05	0.29	-0.06	-0.17	0.87
Exposure to suicide within family	0.84	0.56	0.46	1.51	0.16

[^] This item was included in a child self-report scale developed in parallel with the teacher and parent report scales outlined here. The full analysis is presented in Robinson and Tyler (2006).

exacerbated the already small sample size. With the resources available at this stage of development of the program, use of random assignment to waiting lists or other techniques to produce statistical controls was out of reach and in any case was a lesser priority than consolidation of the intervention itself. Perhaps equally importantly, there is a possibility that the focus on parent-reported children's behaviour was too narrow to capture all relevant changes in families and needed to be augmented by other strategies which explored parenting and parental action in various household settings, aspects of the parent-child relationships and other indices of adjustment within families. Nevertheless, the evaluation as conducted was able to demonstrate positive indicative trends, while the development and use of formal measures were important learning processes in their own right. They confirmed that a rigorous approach to measurement in difficult and unfamiliar terrain is not only possible, but that it can be a desirable adjunct to the process of development of an intervention. It contributes directly to the maintenance of program structure and assists parents and teachers to focus directly on and to learn about key tasks of the intervention: identifying children's behaviours, their determinants, and parents' and teachers' responses to them. In addition to the formal psychometric evaluation, case analysis of individual children and families was conducted. These demonstrated sometimes striking changes

for many children and parents, produced strong indications for the targeting of group work, and assisted in the modification of program content outlined in this paper.

Discussion and conclusions

The transfer and implementation of evidence based programs for parents and children to the context of remote Indigenous communities requires a significant investment of effort to achieve culturally competent and sustainable program delivery. The building of capacity, and the adaptation of a program's processes and its content for remote Indigenous contexts, must be supported by an investment in research and development to support new practices and the development of evaluation methods consistent with the aims of the program.

Against this, the underdevelopment of services sets powerful constraints on the implementation of preventive programs for Indigenous Australians. The sparseness of service coverage and the narrow mix of services available in the Northern Territory mean that there is a limited pool of practitioner expertise to draw on, and limited scope to co-opt the time and energies of practitioners into provision of new services to work on a professional basis with Indigenous people as practitioners. Service providers lack the ability to sustain the additional specialisations of behavioural intervention, social skills training for children or parenting management training for parents.³

The fact that this program was funded by a mix of special purpose grants and research funding means that, at its conclusion, there was no basis on which to replace the capacity established during its duration. In part because of its origins in the health service, the program resulted in only limited skills transfer to the schools, which did not achieve the independent capacity to run the program. A Tiwi Islands Health Service run by NT DHCS replaced the Tiwi Health Board in 2004 and, after continuing to employ the Tiwi team members while project funding lasted, quickly reduced its contribution to preventive programs and capacity building in public health and family support. In the absence of a community-controlled program, and without strong managerial support for ongoing program development, there was no Tiwi agency acting to support the cross-sectoral capacity building we have shown to be necessary.

Case analysis suggested that the modified ETP produced some important outcomes for both parents and children. It suggested that, with continuing development, the program might be shown to be effective in encouraging improved parenting and parent-child interaction and in reducing problem behaviours at home and at school. However, variability in the circumstances of individual children and their extended families means that the pathways for change vary from case to case and suggest the need for further targeting of strategies which can be effective in settings of strain and risk. The analysis of the contribution of characteristics of households to some outcomes suggests that there is a need to continue to explore the contribution of parenting within extended family systems to outcomes of child development. The research was not able to achieve definitive evidence of the effectiveness of the program. However, teacher assessments certainly pointed to positive outcomes in the classroom, actually increasing in effect over six months follow-up. The evaluation also went some way to demonstrating that it is possible to measure outcomes of treatment in such programs. Further research should therefore be able to demonstrate whether an appropriately structured early intervention program can make a contribution – direct or indirect – to prevention in the longer term, in respect of those key issues of substance misuse, self harm and suicide which so concerned the Tiwi leaders.

Our experience with the Tiwi adaptation of ETP does not bear out the commonly held view that structured or ‘rigid’ interventions are not possible in Aboriginal settings. It was not only possible to maintain the key elements of the ETP format, but it was also possible to do so in a way which was sensitive to Tiwi culture and, most importantly, to the themes and issues in Tiwi family life. The means to develop a structured early intervention program which is workable in the Tiwi situation, and the means to measure its effectiveness, are in principle available. To make use of them, government agencies and community organisations need to understand what is required for the establishment of a sustainable and evidence-based intervention program.

Notes

1. Program fidelity is not an absolute. ETP has been implemented in a wide range of circumstances across Australia, by people with varying professional backgrounds, experience and agency support. To the knowledge of the authors, outcomes in varying circumstances of delivery or with varying degrees of ‘fidelity’, have not been formally compared using randomised controls.
2. Because regression to the mean for a normally-distributed sample has a conservative effect on the estimation of Cohen’s d , adjustment for a within-subject error term $(1-r)$ is not indicated.
3. The implementation of any new service in the Northern Territory context also faces considerable challenges from the effects of staff turnover and recruitment difficulties. These render new programs requiring new skills vulnerable to breakdown, and undermine effectiveness of even those programs that can be sustained. These constraints on the capacity to adopt additional programs rise dramatically in rural and remote locations.

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