Evaluation of an Aboriginal Health Promotion Program: A Case Study from Karalundi

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Abstract

Issue addressed: This paper describes the evaluation of an indigenous health promotion program in Western Australia aimed at enhancing self-esteem and reducing drug use among Aboriginal students.

Methods: The processes and outcomes were evaluated using qualitative data and a quantitative questionnaire developed for a similar project conducted among non-indigenous students in New South Wales.

Results: The results were compromised by problems with the evaluation design, with the inappropriateness of the questionnaire, and because of the unsystematic nature of qualitative data collection. While the qualitative data suggests some positive outcomes of the program, on the basis of the data at hand it was not possible to formally demonstrate these.

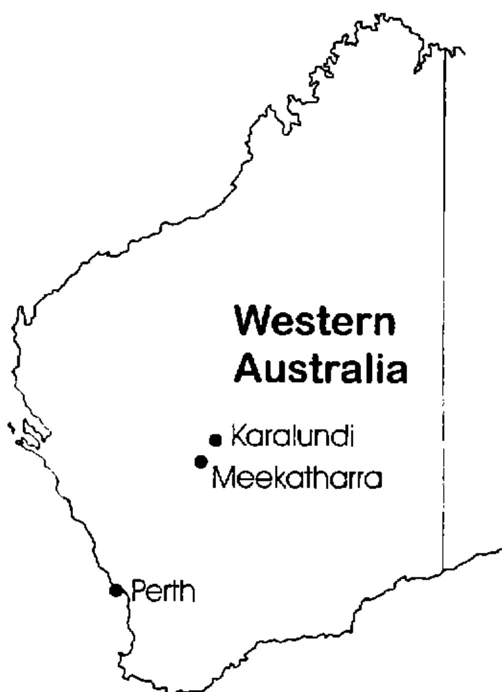
Conclusions: While the results of the evaluation were inconclusive, this should not be interpreted as a failure of the program, but as a consequence of the design and implementation of the evaluation strategy. Through no fault of the community organisation which conducted the program — the evaluation methods employed were technically, culturally, and financially inappropriate.

So what? The problems raised are not unique to this particular program. They lay with the inadequate assessment of project and program proposals by funding agencies, and the lack of support provided to Aboriginal community-based organisations. We propose a number of steps that can be taken to address these problems and, in so doing, can help to better identify strategies for promoting the health and well-being of Aboriginal people.

Key words: Aborigines, evaluation, alcohol, other drugs

Introduction

This paper describes the evaluation of the Karalundi Peer Support and Skills Training Program. It includes a description of the program, the evaluation methods and results, and their broader implications for evaluation of indigenous health promotion and substance abuse programs.



Karalundi is located 1000 kilometres north-east of Perth and 60 kilometres north of Meekatharra. Between 1954 and 1974 it was a Seventh Day Adventist mission. In 1986 it was re-opened by the Karalundi Aboriginal Corporation as the Karalundi Aboriginal Education Centre (KAEC), owned by the community and managed by a board with an Aboriginal majority. Primary, high school and TAFE (Technical and Further Education) students aged 10 to 20 years from isolated traditional, rural, and town-based communities are boarded at the KAEC.

The Peer Support and Skills Training Program was modelled on the Elizabeth Campbell program and adapted to suit the needs of Karalundi students.[1] It aimed to reduce or delay the uptake of smoking, drinking, and other drug use by providing students with positive communication and decision-making skills that would enable them to recognise and resist social influences to use drugs.[2]

Peer Support and Skills Training Program

The program was initiated by the KAEC management board. As a first step, an informal needs assessment was conducted by the community nurse (later the program coordinator) which identified a range of drug-use and general health problems. On the basis of this assessment, a review of the literature, and consultation with other organisations, the Peer Support and Skills Training Program was developed. The aim of the program was to increase student self-esteem and

reduce drug use by means of a variety of strategies including provision of a supportive environment, improving communication between staff and students, developing leadership and communication skills, guiding students away from experimentation with drugs, early identification of personal and drug-related problems, and developing culturally appropriate health promotion media.[3]

The project was funded by two grants. A National Drug Strategy Education Grant of $15,300, from the Commonwealth Department of Health, Housing, Local Government and Community Services (DHHLGCS — now the Department of Health and Family Services), included a small component for the salaries of community members ($4500), administration ($1750) and materials costs ($4046), and provision for program evaluation ($5000). A Healthway Health Project Grant of $2000 contributed to the cost of producing a newsletter and videos. The greatest cost, however, was borne by the community, volunteers, and various support agencies. These costs were not systematically recorded. but conservatively, they are estimated to total $32,100. The largest single contribution was the salary of the coordinator who worked half-time without pay on the project for a total of 58 weeks ($18,400). The cost of time contributed by three other volunteers from the community is estimated to be $5600, and that of personnel from other agencies $3400. In addition, travel and accommodation costs totalling $3750, and materials totalling $950 were donated to the program. It is important that these costs be acknowledged, because without access to such resources, the program could not be replicated in other communities.

In the original proposal, it was planned to conduct the program over the 1994 school year. However, due to delays in obtaining funding the program did not commence until July 1994. The program duration was extended from one to two years; completed in June 1996. In the course of this time, a range of additional strategies were included in the program, and it was expanded to include 10 sub-programs, each of which was designed to address one or more of the original program objectives. These sub-programs were as follows:

- Peer support and skills training sub-program: aimed to develop students' interpersonal, problem-solving and decision-making skills.
- Quit Now education sub-program: covered fitness, long-term effects of smoking, and strategies to quit.
- Drug education and solvent sniffing awareness: aimed to provide an overview of drugs and their effects, and the health and social consequences of solvent sniffing.
- Excursion to Milliya Rumurra Alcohol and Drug Centre in Broome: aimed to provide an insight into the long-term effects of alcohol use, and the services available to Indigenous people with alcohol dependence problems.
- Media and health promotion plays and videos: created by students and volunteers aimed to promote Aboriginal achievement and healthy lifestyles.
- Sex education workshop: aimed to promote safe sex practices and awareness of HIV/AIDS.
- Fabric painting: was used to explore pathways to health, and to develop health promotion messages.
- An annual newsletter, entitled *Karalundi Wangka*: published articles written by the students that dealt with alcohol and other drugs and how misuse of them had affected their lives.
- Trachoma, ear and nose care: aimed to reduce the high incidence of ear, eye and nose infections.
- Natural medicine, alternative remedies and bush medicines workshop: aimed to encourage the use of alternative remedies in place of analgesics to relieve minor symptoms.

Evaluation

An evaluation, including quantitative and qualitative measures, was designed by the program coordinator, who collected data with some assistance from teachers and program educators. At the completion of the program, assistance with data analysis was sought from the National Centre for Research into the Prevention of Drug Abuse (NCRPDA).

Methods

For the purposes of the program, the participating students were identified, by those community members who developed it, as the target population (rather than attempting to select a sample of students from the wider Aboriginal populations of the region). As indicated previously, the commencement of the project was delayed until July 1994. The pre-intervention survey was conducted among 27 students one week prior to the commencement of the program; and post-intervention surveys were conducted among 15 students in July 1995, and among 29 students in June 1996.

This compromised the usefulness of the questionnaire data because the student population is transient — particularly from year to year — and not all students participated in all activities, and not all students completed each questionnaire. Furthermore, because no means of identification was included on the completed questionnaires, it was not possible to ascertain which students participated in the pre-intervention and at least one of the post-intervention surveys.

The questionnaires and instructions for their administration were posted to the school teacher in the control community, and were completed by 12 students. However, the pattern of responses indicated that the instructions were not followed, and that the students had copied answers from each other. Given this, and as resources were not available to enable the coordinator to visit the community, plans to conduct the control component were abandoned.

The questionnaire was based on a questionnaire developed by Reilly to evaluate a similar program among non-Indigenous students in New South Wales (NSW).[4] It included four sections. In the first, students were asked to indicate how often they had used alcohol, tobacco, cannabis and volatile substances, and how often they had been drunk or consumed more than five drinks in a row. In the other three sections, they were asked to indicate their level of agreement with 14 statements about attitudes to drug use (for example, *"You can be friendly without drinking alcohol"*); 10 statements about self-esteem (for example, *"I feel good about myself"*; and 14 statements about how they felt about school (for example, *"School is a place where I feel worried"*).

Unfortunately, direct comparability of the results was compromised by three factors. In both post-intervention surveys two statements about self-esteem, and in the second-post intervention survey one statement about school, were not included. In each of the surveys, the points on the response scales were differently labelled because of concerns about the ability of students to understand them, and *"don't know"* options were included in some but not others. The surveys were also administered under different levels of supervision.

In addition to the major outcomes to be assessed by questionnaire data, a number of intermediate aims were to have been evaluated qualitatively. However, the aims were not operationalised, and data were not systematically collected. Nevertheless, observational data and unstructured interviews with staff and community members were used to improve each stage of the program and provided some insight into the effects of the program. More details on the methods, and the results, are available in a technical report on the program.[5]

Results

Due to the transient nature of the student population, the small number of students involved, and the way in which it was constructed and administered, it was not possible to ascertain from the questionnaire data whether the program had any effect on patterns of drug consumption, attitudes to drug use, student self-esteem, or feelings about school. Furthermore, interpretation of the results within each survey was problematic. First, the lower proportion of students disagreeing with the negative statements indicates that some did not understand the tasks; because, as the school principal commented, mixing of positive and negative statements in such questionnaires is confusing to some Aboriginal students. This highlights the inappropriateness of the presentation and format to students whose first language is not English.

Even if this problem had been overcome, it would not have dealt with a more fundamental issue — that is, at least for the students from the remote communities, the questions themselves were culturally inappropriate. In various Indigenous Australian cultures it is not appropriate to express self-esteem by comparing oneself favourably with others, as the students were asked to do by indicating their agreement with statements such as *"I'm as good as others"* and *"I can do things as well as others"*.

In each of the surveys, 70 to 100 per cent of students strongly agreed or agreed with eight of 10 statements about the use of drugs; and more than 48 per cent agreed with the other two statements. Again, from these data, it is not possible to identify changes consequent upon the intervention program. However, it appears that most students were relatively well informed about drug use prior to the intervention. While not demonstrated by the survey data, the qualitative data suggests that the program probably reinforced existing attitudes among most students and resulted in positive changes among at least some. It also appears that the high proportion in each survey (more than 80 per cent) who agreed with the statement *"Only use painkillers when pain is severe"* facilitated a reduction in the prescription of analgesics and an increase in the use of alternative remedies which was instigated by the community nurse.

As indicated previously, qualitative data were not collected in a manner which enabled systematic evaluation of the program. Nevertheless, it did provide some indication of positive outcomes. These include:

- Enhanced self-confidence among students as a result of the promotion of Aboriginal achievement through an entertaining media and as reflected in their active involvement in selection of activities and their unselfconscious performance in front of small groups.
- Greater empowerment of female students as demonstrated by participation in decision-making processes and successfully undertaking activities which they had designed.
- Increased awareness of health and substance use issues as demonstrated by the ability of students to produce plays, paintings and newsletter articles with strong health promotional messages.
- Reinforcement of existing positive beliefs about health matters, demonstrated by students volunteering to help at the nursing station and by an observed increase in hand-washing and nose-blowing at school (although little change was evident among the younger students after school hours).
- Reduced use of analgesics within the community as observed by the community nurse.
- Provision of an outlet for student creativity.
- Provision of an opportunity or volunteers and staff to develop skills in program implementation, potentially enabling them to independently conduct similar programs in the future.

Discussion

At the most general level, the evaluation highlights the difficulties faced by Indigenous communities when attempting to address a range of needs from a limited pool of resources to which various strings are attached. As the results indicate, it is difficult to demonstrate the positive outcomes of the program in a formal manner. This should not be interpreted as a failure of the program itself. It is, rather, a consequence of the design and implementation of the evaluation strategy — a problem common to many projects in the Indigenous health field. This is not raised as a criticism of the KAEC, but as an exploration of the context of Indigenous program evaluation and a search for ways in which the process can be improved.

Reflecting demands for greater accountability in expenditure of government funds, evaluation proposals are an integral part of National Drug Strategy Education Grant applications. In principle, few Indigenous organisations are opposed to such a requirement. They are — like the KAEC — concerned to improve demonstrably the health status of their members and to do so in the most effective, culturally appropriate manner. The difficulties arise in practice, as evaluation of this program and others clearly highlights.[6]

None of the KAEC board members or staff had any practical evaluation experience and, to meet DHHLGCS evaluation requirements, the coordinator simply adopted the framework used to evaluate the New South Wales program. Implicitly acknowledging this lack of experience, the grant application stated that evaluation would be contracted out to a university-based consultant.

While the usefulness of evaluation was acknowledged, lack of experience led to it being conceptualised as an 'add on' — rather than an integral part of program planning. This had a number of unfortunate consequences. First, apart from some broad measures, no specific indicators were identified which would have enabled unambiguous assessment of program effectiveness. As a result, there were no guidelines for the collection of much of the essential data.

A second consequence was that no consideration was given to either the technical or cultural appropriateness, in the Karalundi situation, of the evaluation methods developed for the New South Wales program. Technically, given the transient nature of the school populations, and the timing of the intervention, the chance of obtaining complete data on students at Karalundi and in the control community before and after the intervention was small. Even if it had not been, there were so few students in each school population that, using the survey data, it would not have been possible to determine whether any small change in drug use was a consequence of the intervention or simply due to random variation. Culturally, some of the questions, their wording, and their format were inappropriate.

The DHHLGCS provided a set of nine criteria against which National Education Grant applications were to be assessed. One of these dealt with evaluation, but the emphasis was clearly upon the relevance of the project to the National Drug Strategy, project planning, and the production of educational resources. The Karalundi proposal was assessed by officers from the DHHLGCS and from the Aboriginal and Torres Strait Islander Commission (ATSIC) — none of whom appears to have any particular expertise in evaluation. The comments made by the reviewers focussed largely on program implementation and issues pertaining to community involvement — although the ATSIC officer recommended tendering of the evaluation component to groups with some expertise.

It might be argued that insufficient information was provided in the grant application to clearly highlight the issue of the cultural inappropriateness of the evaluation strategy; however, it is not unreasonable to expect that the issue of technical inappropriateness should have been identified as part of the application assessment process. This suggests that — at least at the time this particular application was assessed — the procedures were inadequate. The ATSIC officer's recommendation that the evaluation be conducted by a group with appropriate expertise suggests an awareness of the complexity of the evaluation process. That this was to take place at a later stage, however, suggests that for the reviewer also, evaluation was perceived as an 'add on' rather than an integral part of the program.

The lack of expertise on the part of Karalundi community members and staff also had unfortunate consequences for data collection. Some of these arose from the fact that the questionnaires were not pre-tested prior to use. Thus, the fact that the meaning of some statements was not clear to the students was not detected until the completed questionnaires were analysed. In regard to other sections of the questionnaire, after the pre-intervention survey, it was decided that response options to some statements **might** not be comprehensible to the students, and these were changed. This limited the comparability of data from each survey — as did deletion of some questions in the post-intervention surveys, and the differential degrees of assistance and supervision provided in the various surveys.

The grant application stated that *"Simple bookkeeping techniques (that is qualitative techniques) will be used to record student responses to program activities"*, and to this end the coordinator kept notes regarding program implementation. Again, due to lack of training, this data was not recorded in a way that enabled systematic analysis of program processes and outcomes.

In addition to the problems identified above, the evaluation strategy proposed was considerably under-resourced. In particular, insufficient time and funds were allocated to enable the coordinator to plan and conduct evaluation activities. As a consequence, data collection in the control community had to be abandoned, there were no resources to train teaching staff in administration of the questionnaire, there was inadequate time for the collection of qualitative data (even if there had been

sufficient expertise to do so), and no resources were available to recompense the coordinator for her time in assisting the evaluators at the completion of the program.

Comprehensive evaluation is a costly process. The total amount of money sought from the DHHLGCS was only $15,300; yet $5000 of this was allocated to evaluation of program components funded from that grant. This raises the question of whether expenditure on evaluation at this level for such a small program was warranted. We argue that it was not. Not only were elements of the evaluation strategy technically and culturally inappropriate; but its consumption of 33 per cent of available resources also made it financially inappropriate. Again, this is partly a failure of the grant assessment process. We believe that the application should have been reviewed by someone with sufficient expertise to identify the inappropriateness of the evaluation strategy and its cost, and the ability to advise the applicants on a more suitable approach. A larger part of the blame for this, however, must be laid at the feet of those politicians, their constituents and others whose demands for ever greater accountability have often been made with little or no consideration for the practicalities or costs of evaluating the plethora of government-funded projects.

On the basis of this case study, and the authors' experiences as grant application assessors and as consultants to or employees of Indigenous organisations, we believe that some of the problems identified could be addressed if granting agencies adopted the following recommendations.

1. Grant applicants should be provided with more detailed information about the purpose of evaluation and the specific requirements of the granting agencies.
2. This information should be supplemented with lists of persons with appropriate expertise who would be willing to assist Indigenous organisations, at nil or minimal cost, to develop appropriate evaluation strategies that are integral to particular projects.
3. Comprehensive guidelines and procedures for the evaluation of projects should be developed which take into account their different size and complexity. Such guidelines would be of assistance to both applicants and grant application assessors, and would help to ensure that evaluation strategies were matched to particular projects.
4. As part of the assessment process, grant applications should be reviewed by at least one person with evaluation expertise and some experience in working with Indigenous organisations.
5. Most importantly, those working in the health field need to ensure that Indigenous service providers themselves develop the expertise to evaluate their own projects. In a collaborative project undertaken by the Albany Aboriginal Corporation and the NCRPDA, and funded by the Department of Health and Family Services, the authors entered into an arrangement with the Department of Employment Education and Training whereby community members were funded to undertake TAFE-accredited training in basic research methods.[7] Similar arrangements relating to the provision of training in basic evaluation techniques could be formalised with relative ease, and offered as part of a standard package to Indigenous organisations undertaking health-care interventions.

All these recommendations have some cost implications; however, their implementation could improve the work being undertaken by Indigenous community organisations and should be viewed as an investment in the future of Indigenous health.

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References

1 *Campbell E. The student leaders' manual for secondary schools. The Elizabeth Campbell Peer Support Program. Sydney: Yandell, 1989.*

2. *Botvin G. Prevention research. In: Drug abuse and drug abuse research. First report to Congress from the Secretary, Department of Health and Human Services. Maryland: NIDA, 1984.*

3 *Karalundi Aboriginal Education Centre. National Drug Strategy Education Grant application. September 1993.*

4 *Reilly C. An evaluation of Get Real (Phase I): A youth drug education project. Sydney: New South Wales Department of Health, Directorate of the Drug Offensive, 1988.*

5. *Gray D, Morfitt B, Walker J. Karalundi Peer Support and Skil[illegible] Program evaluation. Perth: National Centre for Research into the Prevention of Drug Abuse and Karalundi Aboriginal Education Centre, Mar[illegible]*

6 *Gray D, Saggers S, Drandich M, Wallam P, Plowright P. Evaluating government health and substance abuse programs for indigenous peoples: A comparative review. Australian Journal of Public Health 1995;19(6):567-72*

7 *Gray D, Morfitt B, Williams S, Ryan K, Coyne L. Drug use and related issues among young Aboriginal people in Albany. Perth: National Centre for Research into the Prevention of Drug Abuse and Albany Aboriginal Corporation, November 1996.*