Targeting Aboriginal health in Aboriginal terms: lessons from the Top End

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INTRODUCTION

A particularly dramatic and negative determinant of health status in Australia is being of Indigenous descent. Since the time Europeans settled Australia Indigenous people have been faced with a range of infectious diseases and other conditions to which they previously had not been exposed.[1] Health care for Australia's Indigenous peoples moved away from traditional techniques to the mainstream Westernised 'sick-care.'[2] Doubtless, the present system meets the health care needs of Indigenous people to a certain extent. Measures such as antibiotic use and childhood immunisation have been of great benefit to these people. However, they do not always address the health issues of Indigenous people in a manner acceptable or appropriate for this distinct ethnic group.

The township of Jabiru in the heart of Kakadu National Park is a diverse combination of Indigenous peoples, non-Indigenous Australians, and countless tourists during the wet and dry seasons. Indigenous people comprise about 30% of the stable population of Jabiru whilst a substantial proportion live within Kakadu on remote outstations or 'camps.' Except for one outstation within Jabiru (Manaburduma), all the Indigenous outstations lie some distance from the township, some up to an hours drive away. Access to these outstations is restricted to residents and essential service staff such as the health care team. A number of residents are employed in mining and tourism, which are the major industries in Kakadu, others in the Community Development and Education Program (CDEP), and a large proportion are unemployed. Adherence to either mainstream Australian or traditional Aboriginal cultures ranges widely in both directions. The mixing of cultures in Kakadu has often led to confusion as to the roles of traditional elders and the place of free will and autonomy of the younger generation as well as a loss of clear roles within the Indigenous culture. Further disparity in the community occurs due to the intense coexistence of vastly contrasting Indigenous and non-Indigenous cultures.[3]

Health care in Kakadu is delivered via the Jabiru Community Health Centre (JCHC) in which there is one private General Practitioner (GP) as well as a number of Remote Area Nurses (RAN) employed by Territory Health. The Djabulugku Association is the parent body of Kakadu Health Service (KHS), which employs one GP, an Aboriginal Health Worker, and operates an aged care service, maternal and family service, and drug and alcohol abuse services. These services share a close association with the JCHC, in particular the medical service, which utilises common infrastructure and workforce resources with the health centre.

A recent survey was conducted by KHS of all Indigenous people living in Kakadu National Park. The aim of the study was to establish the current demographics of the area and to gain an insight into how Indigenous people viewed their own health and the services provided by KHS.

METHODS

The survey, in a questionnaire format approved by the Indigenous Djabulugku Association, addressed population demographics, education and occupation, nutritional status, drug and other substance usage, utilisation of the current health system, and other health-related issues.

To conduct the survey, visits to Aboriginal outstations and places of residence were made out of Jabiru Community Health Centre from August to November 2003. All Indigenous residents of Kakadu National Park were intended to be included in the survey. Permission was sought and was freely given by all study participants. To assure consistency of presentation and interpretation, the survey was delivered verbally by a single Aboriginal health worker under the supervision of a registered doctor employed by Kakadu Health Service. Responses were recorded on individual questionnaire forms by the Aboriginal health worker at the time of collection. Data was then tabulated and analysed in Microsoft Excel.

RESULTS

Demographics

A total of 333 people of all ages in 20 different locations in Kakadu National Park participated in the survey. Of these, 23 (less than 8%) were 50 years or older, while 113 (39%) were in the age range 15–34 years, representing the smallest and largest groups respectively. Around 60% of the Indigenous population in Kakadu were in the age range 15–49 years.

The Indigenous population of Kakadu resided in 20 outstations within the national park. The largest number lived in Jabiru (33%) of which one third identified as living in Manaburduma (Town camp) with the remaining two thirds living in the township of Jabiru itself. Two other outstations housed 15% or more each of the population, with 5% or less of the population residing at each of the remaining 16 outstations.

More than half (55%) of participants had attended primary school and 34% secondary school, while 6% had a tertiary qualification and 6% had not attended school at all. For those of school age, attendance patterns were analysed. Less than half (49%) of students attended school on a daily basis whilst 21% and 22% attended school once a week or twice a week respectively. School was rarely attended by 5% and never attended by 2% of school aged respondents.

Substance use

The majority (61%) of participants reported never to use alcohol (Table 1). Of those who did, over one third (34%) did so only rarely or fortnightly, while less than 4% used alcohol daily. Alcohol was mostly consumed either on a weekly or twice-weekly basis. The number of drinks consumed per session demonstrated the large proportion who consumed alcohol at dangerous levels: almost three quarters consumed six or more standard drinks per session while nearly 40% consumed 11 or more standard drinks per session.

Table 1 Alcohol use by Indigenous people in Kakadu National Park

	Number	Per cent
Alcohol use		
No	202	61
Yes	131	39
Frequency of use		
Daily	5	4
Twice weekly	26	20
Weekly	55	42
Fortnightly	24	18
Rarely	21	16
Number of drinks		
1–5	35	27
6–10	45	34
11–15	32	24
16–20	1	1
21+	18	14

Cigarette use was found to be very common with nearly half of residents (49%) having tried smoking and 44% currently smoking cigarettes. The majority of cigarette smokers (55%) smoked less than one pack per day while 45% smoked one or more packs per day. Marijuana was used by 42 people or 13% of the population.

Disease and nutrition

Forty-one Indigenous residents (12%) mentioned that they had a chronic disease. Hypertension and diabetes were present in 10% and 5% of residents respectively while heart, lung and kidney disease were present to lesser extents. The large majority (68%) of these people took medication daily while nearly 15% either rarely took medication (7%) or did not take any at all (7%).

The use of 'bush tucker' was found to be high with 23 (7%), 46 (14%) and 197 (59%) eating some form either daily, twice weekly or weekly respectively. Bush tucker was only rarely eaten by 60 people (18%) while only seven people (2%) never ate bush tucker.

Respondents were asked if there was any time in the past week when they had gone without food for a full day or more. More than half (53%) of all residents indicated that this was true for them and that they had been for at least 24 hours without food over the past seven days.

A question on self-perception of body image was included. Respondents were asked to rate how they perceived themselves to be: 238 (71%) considered themselves "just right", 62 (19%) believed themselves to be "too fat", while 33 (10%) thought they were "too skinny". The responses given were often different to the observed bodyweight of the respondent.

Utilisation of the health care service

Respondents were asked when they last had contact with a doctor, nurse or AHW. More than one third (37%) had no known contact. Of those who did, 29%, 34% and 25% had had such contact in the last week, month and six months respectively. The remaining 12% recalled contact to be within one year or longer.

Preferences of residents (who used the service) for mode of delivery of health care was explored. The majority (63%) preferred only to use the community health centre, while 13% preferred only the mobile service provided by KHS. Nearly a quarter (24%) preferred both services to be operating.

The vast majority of respondents did not have problems with accessing the health care service. Some did, however, giving reasons such as no telephone, no vehicle or other transport, and restricted after hours services. Suggestions for improvement of service delivery included increasing mobile visits, visiting children and the elderly, explaining things more simply, having more AHWs and Aboriginal Educators, providing dental care, and provision of after hours and weekend services. Many respondents also commented favourably on the current health care service.

DISCUSSION

Surveys of Aboriginal communities have largely contributed to an understanding of the epidemiology of health and illness among such populations.[4] Policy and planning requires a stronger emphasis on the development of culturally sensitive health services for Indigenous communities in order to maximise health outcomes.[5] This involves investigating the differences between mainstream Australian and Indigenous cultures and making allowances for such differences in the provision of health services. In addition to this, educating the health care sector as to the importance of understanding these differences and their significance to culturally appropriate health care provision is essential.

Social determinants of health

The age distribution of the Indigenous residents of Kakadu National Park is similar to the distribution reported for Indigenous people in the rest of Australia.[6] The lower life expectancy of Indigenous people compared with other Australians is manifest irrespective of lifestyle or relative urbanisation. Much of the high morbidity and mortality can be attributed to external causes such as accidents, violence and poisoning, as well as chronic diseases such as Type 2 diabetes, cardiovascular disease and renal disease.[7] Chronic diseases often require intensive monitoring and/or treatment which may be neither practical nor desirable for Aboriginal people living in rural and remote areas. For Aboriginal people affected by end-stage renal disease, the definitive management regimen involving dialysis may mean relocation away from traditional land and their extended family unit. In combination with often poorer understanding of the medical issues concerning their condition, such relocation can wreak severe emotional distress in the individual and cause much social disruption amongst the family group.[8]

Dealing with chronic disease presents this and other problems. Important components of management strategies include the use of pharmacological agents and effecting lifestyle modification. Although it cannot be assumed that all respondents affected by chronic disease were required to take medications, a high proportion of those affected (15%) either took medication rarely or not at all. This may result from a combination of factors. The nature of any condition can have different meanings and, therefore, understandings for Aboriginal and non-Aboriginal people. The meaning of a condition to an Aboriginal person can be taken in the context of how it affects their social and spiritual commitments.[9] Such an understanding can relegate the future sequelae of a condition secondary to current functioning in the community and consequently assign it lesser importance in the present context. Furthermore, understanding a condition plays an important role in dealing with it. It should be noted that no correlation was established between participant's perception of illness and whether they had a

documented disease or not. False claims of having a disease may have been made out of lack of understanding, which may partly have contributed to the high proportion of claimants taking no medication for their condition.

The level of understanding of a condition has other implications. Numerous Aboriginal people in Kakadu National Park speak English as a second or third language with a large number speaking 'Kunwinjku' as their primary language as well as other local languages and dialects. Lower levels of understanding may be attributed to poor communication between health professionals and Aborigines in the language used and concepts employed.[2] Several respondents mentioned the need for better explanations to be given as well as more Indigenous health care staff to be available to facilitate appropriate communication between the health care system and the local Aborigines.

Questioning the current system

The trend in modern medicine and health care has been towards patient autonomy. On a broad level, this means giving people the right to seek and decide upon acceptable health care of their own free will. This principle is affirmed legally in Australia and applies to all competent patients. Kakadu Health Service is administered by the Indigenous Djabulugku Association to provide services for Indigenous people. A doctor and Aboriginal health worker are employed to regularly travel to the numerous outstations in the Park and to dispense health care from the back of a four-wheel drive vehicle. Treated conditions range from chronic disease such as diabetes and hypertension, to infections such as scabies and subcutaneous abscesses, to mental conditions such as schizophrenia.[7] A great deal of time is spent by the doctor and Aboriginal health worker travelling between Jabiru and the various outstations. Often targeted patients cannot be found due to other commitments that are of more immediate importance in their way of living and concepts of well-being, including visiting relatives and reduced perception of the significance of their condition. This then affects compliance to management strategies such as symptom monitoring and medication dispensing and adjustment.

Despite the low tangible productivity of these trips, denying the outstations such a service would have disastrous consequences such that morbidity and mortality would doubtless escalate. The question arises though: to what extent should these people be autonomous for their own health? The desire for the mobile service is evident in the large number of respondents who either preferred that service alone or also in combination with the health centre in Jabiru. Similarly, a number of respondents commented specifically on the need for more mobile services in general and in specific regions of Kakadu National Park. It seems that the issues of autonomy, understanding, paternalism and compliance have yet to find a mutually inclusive balance.[10]

Identifying practical strategies

Traditional practices were shown to be very influential in the everyday lives of the majority of Indigenous people in Kakadu. The substantial use of traditional bush tucker by these people has implications, for example, in the provision of dietary advice. One commonsense strategy to educate local Indigenous people about healthy eating and obtaining adequate nutrition has been to describe the healthy food pyramid in terms of bush tucker and other relevant foods. It has been found that a significant proportion of the Indigenous residents of Kakadu partake of traditional bush tucker on either a regular or not-infrequent basis. By designing the pyramid in a manner more familiar to the local people, the information provided becomes more relevant and, therefore, more meaningful. Such an approach impacts on those who do commonly gain their sustenance from the bush, to those who partake of social and familial gatherings and mix with the aforementioned group, and to those who see the efforts of the health care system in

trying to provide culturally appropriate resources for the Indigenous community. Well-conceived approaches for improvement of nutrition should incorporate information relevant to Aboriginal people and hence provide dietary advice that includes types of bush tucker and not just conventional foods required for a healthy lifestyle. This principle is not specific only to nutrition but should be generalised to other areas of health care: information provided must be relevant to the local population to facilitate understanding and improve utilisation of such information.

Further results revealed that a large proportion of the Indigenous people surveyed went completely without food for a period of one day in the preceding week. This concept is quite foreign to most mainstream Australians but was shown to be surprisingly common amongst the Indigenous people living in the Top End. The degree of emphasis placed by Aborigines on certain more temporally proximal issues is perhaps greater than that placed on issues likely to extend to the medium or long term. Thus, food coming into the household may be consumed relatively quickly with little provision for later on when there is none left prior to the next time food is obtained. A similar scenario may be seen with alcohol consumption: of the proportion of people who consume alcohol, a large number do so at high levels. The immediate perceived rewards of high alcohol consumption may outweigh the more distant adverse health outcomes in the medium and long term. It is also possible that users of alcohol may not have an adequate understanding of the long-term outcomes of alcohol abuse. Although not the only factor implicated in tobacco and marijuana abuse, the high levels of use of these substances may also reflect such a temporal value system. Identifying concepts that are inappropriately valued and lead to a negative health outcomes may lead to selective targeting by the health care system. Targeting such value patterns moves the initiative towards working within the value system held by the Aboriginal people themselves. In this particular case, immediate effects such as violence, trauma, and hunger can be targeted to prevent adverse behaviour.

Schooling is a crucial channel for providing education. The vast majority of Indigenous people in Kakadu National Park had been to either primary or secondary school. However, just over half of the respondents had completed primary schooling only. School attendance was also shown to be very low in this population with less than half of respondents of school age attending school on a daily basis. Almost a similar number attended only once or twice a week whilst a small percentage attended rarely or not at all. With such low attendance rates, education strategies implemented via the school system may be successful for non-Indigenous children but much less so for those of Indigenous decent. The effects of low education are wide-reaching and contribute to the vicious circle of low socio-economic status, less autonomy at an individual and family level and poor health outcome.[11] On a population level low education decreases the ability to take part in politics, self-determination activities, and professional roles in mainstream Australian society including those in health care. Adequate representation of Indigenous people in these roles is vital to breaking the cycle of lack of education and poor social and health outcomes.[12] Indigenous role-models are required to add momentum to an upward cycle by encouraging participation in further education to generate new Indigenous professionals and role-models who are able to advocate for their people. Targeting participation in primary and secondary school education is essential to develop a sustainable progression of Indigenous people out of living circumstances that have negative health outcomes.

The survey question concerning body-image perception demonstrated another culture-specific phenomenon. Given that over 50% of the Indigenous population are currently overweight,[6] the fraction of respondents indicating a "just right" body image (71%) is disproportionately large. Of the estimated 65% of men and 50% of women in mainstream Australia who are overweight, approximately 50% and 72% respectively actually describe themselves as being so.[13] Such a discrepancy between Aboriginal and non-Aboriginal philosophy indicates that approaches targeting overweight and obesity in the general Australian population may not have as strong

an impact on the Indigenous population. Therefore, delivery of education and health care must be performed in a culturally sensitive and appropriate manner.

Both Indigenous and non-Indigenous groups desire a higher standard of health for those in need. Programs must be aimed at addressing important issues in a culturally amenable manner and must engender the desire and ability of Indigenous people to become involved in health care provision for their people. The health care sector must actively become aware of cultural differences in dealing with Indigenous people and the ramifications this has for compliance and success of programs, and incorporate this into the provision of education and services. Identification of issues such as value systems can lead to targeting of specific high-yield areas including substance use and schooling. Understanding the needs of Indigenous people involves active co-operation between all stakeholders in order to maximise the yield of any health care strategy implemented for this distinct cultural group.

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PRESENTER

Joseph Turner was born and raised in Armidale, NSW. Joseph moved to Sydney where he graduated with a Bachelor of Medical Science (Honours) from the University of Sydney in 1999. Following this, he commenced postgraduate research focused on the use of artificial intelligence systems to predict human pharmacokinetics. Joseph completed his PhD in Pharmacy in 2003 while concurrently lecturing in pharmaceutics at the University of Sydney. He is currently studying medicine at the University of Queensland and has an active interest in, among other things, rural health care provision in Australia.