Using qualitative methodology to inform an Indigenous-owned oral health promotion initiative in Australia

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SUMMARY

Indigenous Australians experience poor oral health. Oral health perceptions among a group of rural-dwelling Indigenous Australians were explored so that a culturally appropriate, community-owned oral health promotion initiative might be developed. Focus group methodology was used, with prompt questions including oral health knowledge, oral health’s role in general health, how community oral health had changed in recent times, the causes of poor oral health and ways to prevent poor oral health at a community level. Some 34 participants took part; age range 21–72 years. A core category emerged from the data and was labelled ‘cultural adaptation’. Five sub-categories were also identified: ‘lifestyle changes’, ‘oral health behaviours’, ‘barriers to dental care’, ‘impact of poor oral health’ and ‘oral health literacy’. Participants felt that historical legacy impacted on the oral health of community members, through continued practices of being told what to do, where to live and what oral health services were available to them. Participants perceived they had little power over their oral health or oral health care decisions. Findings from the focus group discussions were used in the development of a context-specific, oral health promotion initiative, which involved construction of an audiovisual tool in Phase I and a series of interactive, context-specific seminars focused on key issues raised in the focus groups in Phase II. Oral health promotion initiatives among rural-dwelling Indigenous Australians may be more successful if perceptions of the anticipated audience are considered in the design stage of such strategies.

Key words: health promotion; Indigenous; rural-dwelling; focus groups

INTRODUCTION

Poor oral health may impact on the overall health of individuals and visa versa, with dental decay and periodontal disease having the potential to cause pain, tooth loss, difficulties with eating, problems with speech, infections that spread to other areas of the body and lowered self-esteem due to poor aesthetics (Australian Institute of Health and Welfare, 2006). The oral health of Indigenous Australians (those identifying as Aboriginal, Torres Strait Islander or both) is recognized as being poor (Australian Bureau of Statistics, 2003). However, there is limited evidence of Indigenous Australians’ attitudes and perceptions of oral health, with studies that explore Indigenous oral health ‘stories’ being scarce. Such data may be useful in the development of culturally appropriate oral health promotion initiatives that aim to reduce the high dental disease levels experienced by Indigenous groups.

South Australia is the fourth-largest state in Australia, with the mid-north region having the state’s highest population density of Indigenous people (15.2 percent of population). Such
people represent 23 different language groups and mostly reside in the regional centre of Port Augusta and surrounding areas (Australian Bureau of Statistics, 2001a; Spencer Gulf Rural Health School, 2001). Although the overall population in South Australia’s mid-north region is decreasing, the Indigenous population increased 6.5 percent from 1996–2000 (Australian Bureau of Statistics, 2001b). At the time of the 2001 Census, over half the Indigenous population in this area were aged 25 years or less, and 15 percent were unemployed (Australian Bureau of Statistics, 2001a). There is an Aboriginal-owned and operated medical health centre in Port Augusta, which from 2001 has included a dental health service (Parker et al., 2005).

Qualitative methodology is increasingly being used in the health sector to investigate reasons under-pinning health behaviours and beliefs (McGrath and Bedi, 2002). In the context of Indigenous health, qualitative research techniques are invaluable as they allow information rich in anecdote, beliefs and opinions to be gathered, and are not constrained by rigid data collecting frameworks that may have limited ability to capture cultural or emotional paradigms that influence self-care behaviours, or belief systems unique to non-Western societies (Thomson, 2003; Teram et al., 2005). Indigenous Australian culture places strong emphasis on oral traditions, with ‘stories’ being an important and time-honoured method in which information has passed between generations (Nganampa Health Council, 2001). With increasing Westernisation of Indigenous Australian culture (Altman, 2003), there is some risk that the richness and depth of such stories may be lost as time passes. Qualitative research techniques provide an ideal forum for this information to be captured and retained.

Our qualitative study aimed to investigate the social, cultural and environmental context of oral health among a group of Indigenous Australians in South Australia’s mid-north region so that: (i) a culturally appropriate and community-owned health promotion initiative that specifically focused on oral health might be developed; (ii) data to inform policies related to Indigenous access to oral health services and dental service provision in regional areas might be generated and (iii) baseline information to facilitate design of a larger, more generalizable oral health investigation among regional-dwelling Indigenous adults might be gathered.

METHOD

Ethical approval

Ethical approval to conduct the study was obtained from the Pika Wiya Health Service Inc. Board of Management, the Aboriginal Health Council of South Australia and the Human Research Ethics Committee at the University of Adelaide. L.M.J. and E.J.P. presented the basic outline of the study to the Board of Management of the Aboriginal-run medical centre in Port Augusta, who advised culturally appropriate steps for obtaining support and consent from potential study participants.

Recruitment

Focus group discussions were used to generate data. Such techniques are useful for obtaining information about beliefs, attitudes and understanding, especially for topics that have been previously unexplored and among disadvantaged groups who may not respond well to more quantitative forms of data capture (Khan and Manderson, 1992). To this end, telephone calls were made and invitations for four separate focus groups were sent to members of a local Indigenous arts and crafts group, a diabetes awareness group that operated through the Aboriginal-owned health centre, a young mothers’ Indigenous child care group and a group of Indigenous health care workers. We chose focus group participants purposively, in a strategic manner, to capture the diversity and breadth of oral health knowledge across different age-groups and cultural backgrounds in the community. Although we maximized differences between focus groups to provide greater heterogeneity, we aimed to achieve relative homogeneity in regards to age and background within groups.

An information form and consent sheet outlining the study aims were presented to each focus group participant. Participants were informed that they would receive no incentive, but that lunch or morning or afternoon tea would be provided. Oral health information that was culturally sensitive (for example, tooth removal practices undertaken for male initiation purposes) were identified at the outset of the focus group sessions and not alluded to during the discourse. There were no personal identifiers used at any stage of the study and no identifying values used in data analysis.
Data collection
Prompt questions, based on the literature, were used to help guide participants in discussing suitable oral-health-related topics. These included: (i) knowledge of oral health; (ii) the role of oral health in general health; (iii) how the oral health of people known by participants has changed in recent times; (iv) the causes of poor oral health and (v) ways to prevent poor oral health at a community level. L.M.J. was the moderator in all focus groups, with the sessions lasting between 75 and 90 min. All discussions were recorded on a digital voice-recorder and professionally transcribed verbatim. Memos were written as the discussions took place so that theoretical reflections and interpretations could be recorded as data were gathered. Four transcripts from the focus group sessions together with notes, summaries and memos provided data for the analysis.

Data analysis
The transcribed interviews were analysed line by line and concepts reflecting the substance of the data were identified, with entities of similar content being grouped together to form more abstract categories. Substantive codes were thus identified and labelled in an open coding process to identify descriptions of thoughts and ideas related to the focus group questions. We then compared these codes and grouped them together when we considered them to belong to the same category on a more abstract level. The next step involved seeking connections between categories, and the last step involved performing a systematic search for a core category and related phenomenon in the data. Coding was assisted using Nud*st QSR N6 software.

RESULTS
Some 34 participants took part in four focus group discussions: 30 women and 4 men. The age range of women was 21–72 years while that for men was 55–65 years. All participants were Indigenous and had lived in South Australia’s mid-north region for most of their lives.

A core category was identified and labelled ‘cultural adaptation’. Five additional sub-categories also emerged from the data; lifestyle changes, oral health behaviours, barriers to dental care, impact of poor oral health and oral health literacy.

Cultural adaptation (core category)
Participants portrayed how ongoing cultural adaptation was required to cope with the social and emotional impact of colonialism, living in missions, the stolen generation, loss of land, processes of assimilation and sustained disempowerment. It was explained that such historical legacy impacted on the health, including oral health, of community members, mainly through continued practices of being told what to do, where to live, how/when/if they would receive Government money and what health services were available to them. Participants felt they had little power over their oral health or oral health care decisions.

Older woman in chronic disease awareness group: It was always there, you know, this thing that the missionaries would tell us what to do, where to go, where to sit, what to eat...I never knew about my teeth them days. Spose I should have looked out, you know, but it wasn’t something we were told about. Just leave things like that for the missionaries to tell us.

Middle-aged woman, arts and crafts group: A lot of the Nannas and stuff grew up in the mission – that’s what makes them like that, like they scared if they don’t do what they’re told. They weren’t allowed to have a traditional life in the missions. That was the idea - convert us to God. A lot of people still did little bits and pieces you know, like fishing or whatever. But still they had to cut it down.

Lifestyle changes (sub-category 1)
Lifestyle changes, particularly dietary changes, in recent times were having a marked impact on community oral health according to study participants. Several older participants described traditional foods (‘bush tucker’) they had grown up consuming and the apparent positive effect this had on oral health.

Middle-aged woman, arts and crafts group: People who ate a lot of bush tucker, they had the healthy teeth. I know when we used to work out here years ago, these old fellas used to live in the bush. Still eating a lot of bush tucker and, you know, really good teeth. They always had that smell of smoke around them. The historical thing is the flour, tea and sugar. That was the start of a lot of bad things for us. Weren’t used to it you see.
Middle-aged woman, arts and crafts group: So when people were eating the bush tucker a lot, it was good for their teeth. But then in the missions it was sit, sit still, the Europeans came in and made ‘em all sit down in one spot. But we’re in the fast lane now. Too much fast food. Gives you a buzz. Sugar and fat, that’s part of the thing. Without even knowing it, it’s giving you a buzz so you just go back and want more of it, you know.

There was some awareness of the increased availability of cariogenic foods for children, particularly in schools:

Middle-aged woman, Indigenous health worker: Kids these days are eating a lot of sugar, yep. Lots more fast food and take-aways like muesli bars and things like that. Even school canteens have got the larger variety of lollies. And flavoured milks. The lollies and that was always there but I think they’re just more available. And Coke is an all-rounder, everybody has Coke.

Lifestyle and dietary changes were recognized as contributing to the increased prevalence of diabetes in the community. The impact of diabetes on life quality, including oral health-related life quality, was noted:

Older man, chronic disease awareness group: I think if we stuck to bush tucker, like I wouldn’t be a diabetic today you know. I’ve put on too much weight. But we can’t get bush tucker so easy now.

Older woman, chronic disease awareness group: If you look after your body it helps you look after the rest of your parts. Like our eyes now for diabetics. If we eat a lot of sugar it affects our eyes. I have been through that step, I know exactly what happens now with those things, so with our teeth we need to look after them eh?

More money being available to community members was leading to lifestyle changes that impacted on oral health.

Middle-aged woman, arts and crafts group: It’s a bit different now than when we were growing up. We didn’t get $20 or whatever, you know? We were lucky to get $2, I suppose. We’d go to the shop with $2 maybe once a fortnight but now the kids go everyday. And they always buy lollies.

Changes in working patterns meant that some mothers in double-income families had limited time to prepare healthy school lunches for their children, which was impacting on the types of foods such children were consuming during the day.

Middle-aged woman, Indigenous health worker: Because the Mums can’t be with them so much with time, they’re handing out money, here you go here’s some money and what are kids gunna buy? Bad stuff.

The impact of smoking on oral health was noted.

Middle-age woman, arts and crafts group: Smoking all these years, it’s made my teeth look like something I don’t like. I know I’ll be walking around gummy soon or whatever.

Young woman, childcare group: As kids I remember asking questions ‘why have you got black teeth Dad?’ and the adults would try and cover up the smoking habit and not make smoking sound bad. Not being honest about it and feeling a bit of shame.

Oral health behaviours (sub-category 2)

According to the older study participants, oral self-care behaviours were not a part of traditional lifestyle. This may have translated to contemporary times, with participants commenting that behaviours conducive to oral health were not widely practiced, either by themselves or by other community members.

Older man, chronic disease awareness group: In the olden time our people did not need to brush their teeth. Nope, they didn’t brush their teeth in those days.

Middle-aged woman, Indigenous health worker: The kids have toothbrushes but they stay at different places so it’s hard for them to keep this toothbrush you know. That’s the old way of bringing up the children, they stay in different places. And the Nannas and that, they don’t brush their teeth either. Not brought up that way I suppose.

Barriers to dental care (sub-category 3)

Many barriers to seeking dental care were identified by participants, including dental pain, fear, cost, waiting times and lack of culturally sensitive dental health services/service providers.

Middle-aged woman, arts and crafts group: When you’re really in pain, you can’t get the care. You’ve got to wait, wait. You wait until Christmas next year. You might as well give up, you know. That’s what most people do.

Middle-age woman, arts and crafts group: It’s not fun, you know. You go there, lay on the bed there and they’re right on you. It can’t be helped but it’s...
not a very good feeling you know, to go in there and lay there with people you don’t know ... so anybody will get a bit uptight about it.

**Middle-aged woman, Indigenous health worker:** I think a big impact is like when you’re a worker and don’t have a Health Care Card, you have to pay $40 just to get an x-ray on your tooth so the expense of getting things done. So then you well I may as well just wait until it gets bad and then get it pulled out instead of keep going up and down, up and down.

When participants were asked if they would feel more comfortable attending for dental care with an Aboriginal dentist, there was a range of responses:

**Middle-age woman, arts and crafts group:** Yeah, I suppose. Black on black you know. They’d know what to expect.

**Middle-age woman, arts and crafts group:** It would be good ‘cos the feeling is similar, you know? That’s how Aboriginal people feel. It’s bad enough for an Aboriginal person to go to normal dentist. But if the dentist was Aboriginal too, and been here for that long, the rest of the community might come too.

**Impact of poor oral health (sub-category 4)**

All participants had experienced negative life impacts resulting from poor oral health, and knew other community members, particularly children, whose poor oral health had similarly affected their life quality.

**Middle-aged woman, arts and crafts group:** I mean, you don’t die from toothache but if you don’t have good teeth, then it’s hard to eat properly and sleep properly. You get a lot of pain when you’ve got a bad toothache.

**Middle-age woman, arts and crafts group:** It affects your whole body, having toothache, your way of thinking. You just don’t wanna get out of bed. You just wanna lay with a hot pack. You don’t wanna talk. You don’t want to associate, or nothing. You can’t eat food.

**Young woman, childcare group:** You see a lot of young people today with missing teeth and stuff. They just don’t bother to have them replaced. Some feel shame about it too you know, like how it looks and everything.

**Oral health literacy (sub-category 5)**

Although some participants were aware of the importance of positive oral health behaviours such as brushing teeth and regular dental appointments, there appeared to be a general lack of understanding/empowerment at a community level about measures required to achieve good oral health.

**Middle-age woman, arts and crafts group:** One older person said to me that if there was no trouble with the teeth, back in their day, well they didn’t worry about it. It was only when they felt it ache. So if there’s no trouble there, if there’s no pain - if there’s no pain there’s no patient.

**Middle-aged woman, arts and crafts group:** All our relations, everybody used those bottles with cordial, you know, sugar to put kids to sleep. Or to give to them to shut up, you know. It’s just normal, we just knew that’s the way to do that. We grew up into that system. It’s like, a carry on from the mission stuff, you know?

**Middle-aged woman, Indigenous health worker:** I reckon people have got used to kids getting bad teeth. They think it’s normal now. Like there’s no surprise if someone gets rotten teeth. They’ve got used to seeing the holes.

A sense of powerlessness that good oral health was beyond the control of participants, both at an individual and a community level, pervaded much of the ‘oral health literacy’ discourse:

**Young woman, childcare group:** The older people didn’t need to brush their teeth, they just waited until it got bad and then got it pulled out and they probably passed that on to their children, and that’s where the educating of the dental part got lost out. A lot of people just think that your teeth are gunna get bad and that there’s nothing you can do about it anyway.

**DISCUSSION**

The aim of this qualitative study was to contribute to an understanding of what oral health means to a purposive sample of regional-dwelling Indigenous Australians to inform a context-specific, Indigenous-owned oral health promotion initiative. We identified cultural adaptation as being a central phenomenon in regards to participants’ perceptions of oral health and of others in their community. Five sub-categories labelled lifestyle changes, oral health behaviours, barriers to dental care, impact of poor oral health and oral health literacy also emerged from the data. When interpreting our findings, it is important to consider that Aboriginal oral health is not just the oral well-being of an individual but the social, emotional and cultural well-being of the
entire community in which that individual belongs; a whole-of-life view point (National Aboriginal Health Strategy Working Party, 1989). When a participant perceives, for example, that there is ‘nothing they can do’ about their poor oral health, this may not just be a personal belief, but reflect the general perception of the wider community.

The ongoing cultural adaptation required by Indigenous Australians since colonization has led to related changes that were identified in the focus groups (the sub-categories) as having specific impacts on oral health. These will each be discussed in turn.

**Lifestyle changes**

Indigenous people were believed to have lived in Australia for 100,000 years before European contact (Fullagar et al., 1996). They had a semi-nomadic, hunter/gatherer lifestyle and strong spiritual links with the land (Diamond, 2004). Marked lifestyle changes occurred in the post-colonial era due to the rapid introduction to industrialized society. Many Indigenous groups were removed from their lands and placed in government-subsidized missions. Traditional lifestyles were discouraged and, up until the late 1960s, children with mixed parents were placed in European homes. The impact of such policies on the social capital of Indigenous groups at a national-level has been devastating. Rapid dietary changes also occurred in the post-colonial era, with traditional foods being replaced by rations and more recently, convenience foods, many of which are high in fat and refined carbohydrates (Gracey, 2000). Such dietary changes have impacted on the oral health of Indigenous Australians (Nganampa Health Council, 2001), as reflected by our study participants. Other Western habits such as cigarette smoking and alcohol consumption were also introduced, with similarly harmful effects (Clough, 2005). Increasingly sedentary lifestyles meant that diabetes and other chronic conditions became more prominent among Indigenous groups (Gracey et al., 2006), which had further impacts on oral health (Jansson et al., 2006). This was, again, reflected by our participants.

**Barriers to dental care**

Dental health service provision in Australia is generally not based on the holistic principles espoused in Indigenous ideology, with dental service providers being predominantly non-Indigenous and not often from the community in which they are employed. Such professional or lifestyle models are not easily understood by Indigenous clients utilizing oral health services, which in turn contributes to a sense of wariness or distrust on behalf of the clients that may further translate to feelings of fear or powerlessness (Cunningham et al., 2005; Kowal and Paradies, 2005). Participants’ views in our study suggest that the formation of a strong relationship between oral health service providers and Indigenous clients is paramount before regular service provision will be sought (Gilbert, 1998). As mentioned by participants, the incorporation of more dental clinics and oral health promotion initiatives in community-controlled health services would likely increase Indigenous utilization of dental services and improve oral health knowledge, both of which are targets in Australia’s National Oral Health Plan (National Advisory Committee on Oral Health, 2004).

**Impact of poor oral health**

Because participants, for the most part, chose to live with their dental pain as opposed to seeking timely dental care, the negative oral health impacts on their quality of life were marked. It is worth bearing in mind, however, that Indigenous Australians, in general, score worse on almost every health indicator than
their non-Indigenous counterparts, meaning their quality of life is influenced not only by oral health problems but those at a more systemic level (Australian Institute of Health and Welfare, 2006). It is also important to recognize that some oral health problems, for example, periodontal disease, may be caused primarily by chronic conditions such as diabetes, and that for oral-health-related-quality-of-life to be restored among such participants, the systemic condition needs to be treated first and foremost. Participants in the chronic disease group mentioned that diabetes educators based at the Aboriginal health centre were unaware of the oral health influences of diabetes, indicating that more education about this relationship to Aboriginal health workers/educators is necessary.

Oral health literacy

Health literacy has been defined as ‘the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions’ (United States Department of Health and Human Services, 2000). In the dental health context, these can be considered as the skills necessary for people to understand the causes of poor oral health, to learn and adopt fundamental aspects of positive oral self-care behaviours, to communicate with oral health care providers, to place their names on waiting lists or organize appointments, to find their way to the dental clinic, to fill out the necessary forms and to comply with any required regimes, including follow-up appointments. Oral health literacy, based upon this definition, was poor among participants in our study. There was generally little understanding of the processes involved in dental disease progression, and a general sense that oral health conditions were beyond the control of individuals. The latter may have been related to the social dislocation or historical disempowerment experienced at a community level (Smylie et al., 2006).

Findings from the focus group discussions were used to inform construction of a context-specific, oral health promotion audiovisual tool (DVD), with members of the focus groups who expressed an interest being employed as ‘actors’. Sensitivity and cultural appropriateness of the tool were enhanced by using direct quotes from the focus group discussions. A further phase of the oral health promotion initiative, again based on the focus group discussion findings, involves a series of interactive, context-specific seminars being held with each of the community groups involved in the initial discussions (in process).

A shortcoming of our study was the lack of male participants. Indigenous Australian culture has clear demarcations between men’s and women’s ‘business’, with health- and child-care traditionally being the responsibility of women. Both researchers involved in the focus group discussions were female, meaning it was not culturally appropriate for men’s only groups to be targeted. It is also important to consider the cultural status of the researchers (non-Indigenous) and the role this may have had on data collection. Another shortcoming is that our sample size was small, and our participants primarily regional-dwelling. This should be taken into account when considering how representative of other Indigenous groups our participants, or findings, were.

The Geneva Declaration on the Health and Survival of Indigenous Peoples recommended several strategies to improving Indigenous health at a global level, including capacity building, mandatory cultural education for health professionals and constitutional/legislative changes (Committee on Indigenous Health, 1999). Findings from our research reinforce these recommendations in regards to Indigenous oral health, and suggest that strategies designed to improve oral health outcomes among Indigenous groups may be more effective if the influence of historical legacy/cultural adaptation, and the downstream factors resulting from this, are incorporated into the provision of Indigenous health services and health education/promotion programmes.

CONCLUSIONS

Our data gave some indication of the oral health perceptions of a sample of regional-dwelling Indigenous Australians. This information proved invaluable in the construction of an interactive, context-specific oral health promotion initiative that seeks to improve oral health outcomes among this group. It is hoped that information obtained from the study will also be valuable in informing policies related to Indigenous access to oral health services in regional locations, and in enabling the
Comprehensive design of a larger, more generalizable oral health investigation among rural-dwelling Indigenous adults.

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