Factors influencing the perceived importance of oral health within a rural Aboriginal and Torres Strait Islander Community in Australia.

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Research article

Keywords: Australia, Oral health, Indigenous, Health Service Utilisation

Posted Date: December 31st, 2019

DOI: https://doi.org/10.21203/rs.2.19642/v1

Version of Record: A version of this preprint was published at BMC Public Health on April 17th, 2020. See the published version at https://doi.org/10.1186/s12889-020-08673-x.

Abstract

Background Indigenous Australians suffer from higher rates of oral disease, have more untreated dental problems and tooth extractions then the non-Indigenous population. In addition to this, Indigenous Australians also have lower rates of dental visits; are more likely to visit for a problem rather than a check-up and; are also more likely to present at emergency departments for oral complaints. Multiple issues effect health service uptake including the social context, characteristics of the individual and community, and enabling factors such as available wealth and social support. Additionally perceived importance of the disease to the individual or community also influence treatment seeking behaviour. The purpose of this paper is to explore the perceived importance of oral health within a rural Indigenous community in Australia and the factors influencing this perception.

Methods A qualitative study was completed incorporating focus group discussions and in-depth interviews. Twenty- seven community members participated in three focus groups and twelve in-depth interviews.

Results The study found that the community gives high priority to oral health. Factors influencing the importance given included the severity of symptoms of oral disease such as pain experience; enabling resources such as access to finance; social impact such as personal appearance; and health beliefs including oral health awareness. Respondents also noted that the importance given to oral health within the community also competed with the occurrence of multiple health concerns and family responsibilities.

Conclusion This paper highlights that the under-utilisation of oral health services is not associated with the degree of importance given to oral health within the community. Under-utilisation is influenced by the major barriers faced in accessing oral health services and the number and severity of competing health and social concerns within the community. The study results confirm the importance of establishing affordable, culturally appropriate, community-based oral health care services to improve the oral health of rural Indigenous communities.

Background

In Australia, Aboriginal and Torres Strait Islander peoples (respectfully referred hereafter as Indigenous) suffer from higher rates of oral disease including dental caries and periodontal disease than the non-Indigenous population (1–4). Oral disease causes pain and disfigurement, has a negative influence on quality of life, and is linked to poor nutrition, diabetes, and cardiovascular disease (5, 6). Indigenous Australians also have lower rates of dental visits and are more likely to visit for a problem than for a check-up (7, 8). In addition to this, Indigenous Australians are known to have a higher disease burden then non-Indigenous which is complicated further by a higher prevalence of psychosocial risk factors; lower socioeconomic status; lower social capital; and a higher prevalence of lifestyle risk factors (9, 10).

Multiple issues effect health service uptake including: factors associated with the disease; with the individual and their community; with health services; with the broader environment and history of the community; and with competing health and social priorities (11–15). Factors such as the severity of a disease's impact and its prevalence influence treatment seeking behaviour (14). Additionally, individual and community factors such as the perceived importance of the disease also influence treatment seeking behaviour (14, 16). Perceived importance is a social phenomenon and has been described to be explained by social characteristics, access to enabling resources, health beliefs and severity of symptoms (14).

Employment status, income, education, self-efficacy, health literacy and cultural connection all have a strong influence on both the patterns of oral disease for Indigenous people in Australia (17–21); and on the uptake of oral health services (22–26). Health service factors have also been shown to influence the decision to access oral health services within Indigenous communities. These factors include high costs associated with accessing treatment; lack of familiarity with the dental care provider; and lack of availability of culturally appropriate services (27–29). Rural and remote Indigenous communities are faced with further challenges due to the limited availability of oral health services leading to greater distances to travel and the limited consistency of rural and remote oral health services due to workforce shortages (30–32). Importantly, historical and ongoing environmental factors associated with colonisation also play a major role in disparities in oral health outcomes and oral health service uptake (33–35). This has been highlighted by The Australian Research Centre for Population Oral Health which has stated that, 'Aboriginal and Torres Strait Islander peoples present with third world problems in a first world country as a result of the dispossession of their land, disruption of their culture, material deprivation and racial discrimination' (28). Further to this, rural Indigenous communities face a significant number of other competing health priorities associated with major diseases including cardiovascular disease, diabetes, kidney disease, respiratory disease, cancer and mental illness (36).

The purpose of this paper is to explore the perceived importance of oral health within a rural Indigenous community and the factors influencing this perception. This is considered in the context of the barriers to accessing oral health care and the multiple competing priorities faced within rural Indigenous communities. It is anticipated that the findings will assist in deepening understanding of oral health care seeking behaviour and support the development of oral health services which better meet the needs of rural Indigenous communities.

Methods

This study is one aspect of a larger qualitative study exploring oral health service needs, the community's perceptions of the importance of oral health and how oral health can be best improved within a rural Indigenous population.

Setting

This study was conducted in a rural Indigenous community in Queensland, Australia. The community has a population of approximately 1300 people of which over 95% identify as Aboriginal and 2.5% identifying

as both Aboriginal and Torres Strait Islander. Because of the relocation of Indigenous people under past government policies the population have connections to many different Australian Indigenous nations. Just under a quarter of the community earn an income other than government benefit and around 15% of residents have completed year 12 or equivalent (37).

Within the community, the local Aboriginal Controlled Community Health Service provides oral health services intermittently throughout the year and there is a visiting state government funded school dental van providing oral health services to children. The closest private dental services are located approximately 8 km from the community and the closest public dental services are located approximately 50 kilometres from the community.

Research team

This study was undertaken by a research team including Indigenous and non-Indigenous persons in partnership with the local community's Health Action Group. This group includes representatives from the diverse agencies in the community including health, education and welfare agencies. The Indigenous research team members were also members of the local community with extensive experience in health service provision. Their participation has supported all stages of research development, implementation and reporting and in particular in raising awareness of the project to facilitate participant recruitment and in assisting with recruitment of a local research assistant.

Study design

A qualitative research design was employed to guide the conduct of the study. In-depth interviews and focus group discussions were undertaken with the intention to explore the importance given to oral health by community members and the factors influencing the level of importance given. This qualitative approach has been well documented as appropriate for focusing on topics that are not well explored and working with populations on topics that require rich contextual understandings (38).

Study participants and recruitment

A local Indigenous research assistant from the community was employed to assist with managing recruitment and supporting the conduct of individual in-depth interviews and focus group discussions. Following advice from key informants within the local community a convenience sample was recruited from established groups. Differing community groups were strategically included to capture the diversity and breadth of oral health experience within the community. These groups included participants accessing chronic disease services, attending hospital outpatient's services, maternal health services and other community groups. To allow for the possibility that participants may not be comfortable talking openly in a group about the topic, participants were provided with the choice of participating in focus groups or individual discussions.

Data Collection

Where possible, focus groups were organised to achieve relative homogeneity regarding age, engagement with specific health service, gender or role within community. This was to further facilitate participant comfort in the group environment and maximise topic understanding (39). Data collection through these two types of qualitative methods was completed from January – April 2017.

The schedule of research questions to guide both individual interviews and focus groups was developed in partnership with the local Health Action Group. The development of questions was based on a review of the literature, discussions within the research team and the Health Action Group and, informal discussions with local community members to ensure cultural appropriateness and clarity of questions. Questions centred around two foci, the perceived importance of oral health and the factors influencing the importance given to oral health. Discussions were also facilitated to allow for a relaxed conversational process that aimed to build a relationship with the participants. Participants were encouraged to share their personal perceptions and stories in order to co-develop knowledge and share experiences simulating a yarning or storytelling experience in the context of Australian Aboriginal and Torres Strait Islander people (40, 41). To allow for reflexivity of the research process the interview schedule was reviewed and further refined during the research process (42). Field notes were completed throughout the entire research process to assist with recording investigator observations and reflections.

Data Analysis

All in-depth interviews and focus groups were transcribed verbatim. Data analysis initially involved two of the research team members reading the transcriptions independently to gain an understanding of participants' perceptions and experiences. Using inductive reasoning emerging common themes were identified. The two researchers then compared their proposed themes, discussed similarities and differences, and checked against original transcripts for validation until consensus was reached. The proposed thematic analysis was then reviewed and confirmed by a member of the research team who was also a community member to support accuracy of interpretation and to further explore interpretation where necessary. Final organisation of the data was completed with assistance of NVivo© 12 (Windows) QRS. Analysis and description within each theme were continued until description was exhausted.

Research Ethics

This research was conducted within the guidelines for Ethical Research in Australian Indigenous Studies (43) and was granted ethics approval (Protocol HREC/16/QTDD/42). The research was conducted in partnership with the local Health Action Group. The research team included members of the local rural Indigenous community. These members and the local Health Action Group were integral to providing advice in relation to the study including: study design; development of the data collection instruments; promotion of the study in the community; assistance with cultural support of participants if needed and responding to any concerns if they arose; and reporting to the community. Prior to conducting any session, the project and implications for involvement were reviewed and signed written informed consent was obtained from all participants. All data were de-identified, and the reporting of the findings was submitted to the local Health Action Group for discussion.

Results

Three focus groups and twelve in-depth interviews were completed with twenty-seven community members. There was a total of 10 male and 17 female participants. Four participants were aged between 18 and 39 years, while the remaining 23 were aged over 40 years. Nearly all of the respondents gave a high level of importance to oral health.

Yes, it is, very important… because it's like a part of you.

Factors influencing the importance given include: the severity of symptoms of oral disease such as pain; the demand on resources to respond to oral disease such as financial resources; the severity of the social impact of oral disease such as the damaging effect on personal appearance; and health beliefs and oral health awareness.

Severity of Symptoms

Respondents gave a high importance to oral health principally because of the pain associated with untreated oral disease. These perceptions stemmed from respondents' personal experience of oral disease or their observations of the impact oral disease had on their family or other community members. We suggest it would be difficult to overestimate the experience of the pain of untreated oral disease within the community as one respondent described:

You know, it's a pain you can't handle … tooth ache… Everybody knows how it is powerful. You lay in bed and you're in frigging agony in your mouth. … That's what it is, hey…Yeah, it was a pain I'll never ever forget.

The severity of the ongoing pain of untreated oral disease led some respondents drinking alcohol to reduce the pain of pulling out their own teeth with pliers.

…that night, you know my tooth was aching, yeah, so what I do yeah, I just get drunk and just pull it out… then I just get the pliers and just yanked on it … that's three times I did that.

Respondents were very aware of the suffering of other family and community members, with oral disease described as occurring frequently and often ongoing.

It's something that I see the kids suffering with, and I know that there's nowhere for them to go. … I actually had boys sitting on the carpet about a week and a half ago comparing abscesses and gum boils. "I have a lump here." "Oh, well look at mine." … It's not nice to see the kids dealing with that sort of stuff. But there is no consistent clinic or anything out here for them to access.

I haven't had anything really impacting on [class attendance] yet, but with the amount of holes in teeth that the kids are showing me now, and the number of abscesses and stuff, I can definitely see at some point these kids are going to be missing out on school because of their pain and their dental issues.

Demand on Resources to Respond to Oral Disease

Responding to oral disease places demands on individual family and community resources including financial resources, social support and networks, transportation and the time needed to access services.

The widespread experience of financial burden associated with oral disease was a principal influence on the high importance given to oral health. This financial burden includes the treatment costs along with the associated costs of transport to and from an oral health service and lost work hours.

Yeah (having good teeth) is very important because when I had to pay for dental things, it cost almost 1,000 bucks… It is very expensive.

Responding to oral disease was also recognised as placing a burden on the whole family. As one respondent explained of the reliance on others for transport and concern for the burden this may cause.

If they're not mobile then how the hell are they going to get here? So they're just relying on family and stuff. Then family have to stay there with them, which is a concern because they're doing their own thing.

Social Impact

The importance of oral health was also linked to social impact most notably the benefits to appearance and self-esteem of a healthy mouth.

> *…because it's like a part of you. It makes you look good.*

Oral disease was perceived to have a severe negative impact on appearance through the presence of severely stained, broken or missing teeth.

…everybody cares about how they look. Like even old people do. Yeah. It is important to them and it's definitely for comfort because you've got to eat every day. You want your teeth to eat every day. It's about how you see yourself. It's okay if people - how they see you, it's all right and you can take that how you take it. But it's important from how you see yourself and how [you like yourself]. Anything that improves especially eating and how you look. It's an everyday thing so - it has a big impact on you really -to having a better life and a better outlook on life.

One respondent noted the importance of good oral health to her confidence.

Yeah, that actually boosts my confidence a lot. Because I never used to smile because I had like a hole in my teeth, but ever since it's fixed, I can smile freely.

Oral health was also given high importance because of its importance for eating and nutrition.

Well, yeah very important just to eat.

Well you need your teeth to chew you know …

Respondents also highlighted the important role of oral health care with one respondent reflecting on recent care:

Feels great, it's like a second chance.

One respondent gave high importance to oral health due to her perception of the severely negative impact oral disease has on those with chronic disease in the community.

It means a lot because we have a lot of people here in this community that have ongoing issues with diabetes and heart problems.

Health Beliefs

Health beliefs are attitudes, values and knowledge people have about health and health services that can influence their subsequent perception of importance. Knowledge about oral disease and its impact and, prevention and treatment options were observed by respondents as influencing the importance given to oral health. Several respondents believed that a limited number in the community did not prioritise oral health as much as they should which they associated with a lack of awareness.

I don't think they have a priority for oral health. …. I think that's entrenched. It's where we've got to go with education and just improve that whole understanding. I mean I've done some women's health days where I've spoken, and these are all over the place, and it's astounding how many people don't realise the potential for the chronic disease impact with dental health, and stuff.

For the older participants, reflection on their increased awareness of oral health and oral disease prevention strategies highlighted for them both the importance of oral health and missed opportunities to protect their own oral health.

Oral health is important to me now, now that I know what I know. …. if you look after your teeth, you've got them for the rest of your life.

I only wish I knew then what I know now about it. That's why, right at the beginning, that's what we needed to know. Otherwise we'd have looked after our teeth; ate the right food and that… So, oral health is important to me now, now that I know what I know.

Despite the high importance given to oral health respondents noted that oral health is just one of many competing health and social issues within the community. This is clearly highlighted in a respondent's reflection about how the importance of oral health had changed for her over time.

You only realise these things when you grow older. Because to me at the time, it wasn't important when I was having all my children. It wasn't important. Like I said, the only important thing was putting food on the table… Keeping them fed, and clothed, and clean.

Discussion

The purpose of this paper is to explore the perceived importance of oral health within a rural Indigenous community and the factors influencing this perception. This study found that community members give high importance to oral health. The key influencing factors on the high importance given oral health are the widespread experience of the severe pain of untreated oral disease and the high cost and prevailing difficulty and at times inability to access oral health care. Nearly all participants had either experienced the negative impact of oral disease or knew of family or community members who had faced the impact of untreated oral disease. Additional factors include the experience of the positive benefits of good oral health on daily living including improved appearance, self-esteem and eating. Respondents also noted that the importance given to oral health within the community varied with both the knowledge of the impact of oral health and oral disease and, with the occurrence of multiple competing health concerns and family responsibilities.

Despite the high importance given to oral health the literature reports that Indigenous people are less likely than the general population to have visited an oral health service in the past year and then often only for the relief of pain (29, 44). This is a major concern as healthy preventive behaviours for oral disease include the regular attendance of oral health services including regular attendance for check-ups rather than dental problem. Such visiting patterns provide the opportunity for early diagnosis, prompt treatment of dental disease and provision of preventive services. This research highlights that the under-utilisation of oral health services is associated not with any limited importance given to oral health within the community but rather with the major barriers faced in accessing oral health services and the number and severity of competing health and social concerns within the community. The study results confirm

the importance of establishing affordable, culturally appropriate, community-based oral health care services to improve the oral health of rural Indigenous communities.

Limitations

Representation of participants may be biased to those who have self-selected as they are concerned about oral health. Participants also tended to be older adults and so it is noted that most participants had experienced complications of oral disease. Difficulties are therefore noted in interpreting these findings and their application to youth and younger adults.

Conclusion

The study highlights the high priority given to oral health within a rural Indigenous community. The high priority is primarily attributed to the widespread experience of the severe pain of untreated disease and the cost and difficulty of gaining treatment for oral disease. Indigenous communities have both a high burden of oral disease and reduced uptake of oral health services. This is due to multiple factors. An assumption that this is primarily due to a lack of importance given to oral health does not recognise the multiplicity of factors influencing uptake of health services in rural Indigenous communities. The study contributes to the body of research that recognises that the priority given to a disease within communities may be influenced by factors other than simply the pathology of the disease.

Declarations

Ethics approval and consent to participate

Ethics approval was granted by the Darling Downs Hospital and Health Service Human Research Ethics Committee (Protocol HREC/16/QTDD/42). The authors worked in partnership with the local Health Action Group to design and implement the study. Prior to conducting any session, all participants were given a verbal introduction to the project and implications for involvement discussed in collaboration with a local research assistant. An information sheet was provided to all potential participants and signed written informed consent was obtained from all those who decided to participate. All data were de-identified for data storage and reporting. The reporting of the findings was submitted to the local Health Action Group for discussion.

Consent for publication

Consent for publication was given by the local health action group.

Availability of data and materials

The data generated during the current study are not publicly available due to the potential for individual privacy being compromised but are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests

Funding

This research was funded through the Department of Health – Health Practitioner Research Scheme 2016/2017 funding round. The funding body had no role in study design, data collection and analysis or writing of the manuscript.

Authors' contributions

AT, DW, TT, TF and BF participated in developing research design of this study. TT completed the qualitative fieldwork with support from TF and BF. AT and DW led the analysis, development and drafting of the manuscript with feedback from TT, TF and BF. All authors have read and approved the final manuscript for submission.

Acknowledgements

The authors wish to thank the participating community, especially the participants who volunteered their time to provide valuable information regarding their personal experience of oral health and oral disease. The research would not have been possible without their generous contribution. Appreciation is also given to the local Health Action Group and the Elders for their active involvement in the project decision making, consideration of findings, and commentary on the draft report. We would also like to thank the local Health Service for their advocacy on behalf of the community and the local Aboriginal Shire Council for their support in recognising and promoting the need for this project. Thanks, is also given to the South Burnett and Kingaroy dental services who facilitated the project to be undertaken and support the need for a culturally appropriate oral health service to be developed. We acknowledge the Traditional Owners of the community (Wakka Wakka), and pay our respects to the Elders: past, present, and emerging.

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