Report

Peer-reviewed paper: submitted October 2014; accepted February 2015

A qualitative study of the meaning of oral health and self-care for 40 Dunedin residents living on lower incomes.

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ABSTRACT

Background and Objectives: This project extends studies of oral health cultures for lower income families by identifying the participants' meaning of oral health self-care, barriers to its attainment, and suggestions for its improvement.

Methods: Forty open-ended interviews were conducted with Dunedin residents purposively selected from a variety of ages, backgrounds and ethnicities. Transcribed interviews were analysed thematically.

Results: Five key themes emerged: (1) oral health understandings for self and wider family groups; (2) the complexity of understanding cost in relation to oral self-care; (3) oral self-care tools and daily oral health routines; (4) relationships with oral health workers and the meaning of good and bad care provision; and (5) the State's involvement in oral health.

Conclusions: Participants valued good oral health and were knowledgeable about it, but cost was the primary barrier to care.

INTRODUCTION

The poor oral health of deprived New Zealanders was the most striking finding of the third national oral health survey, conducted in 2009 (Ministry of Health, 2010). Adults living in the most deprived neighbourhoods had (on average) more than twice the number of decayed teeth seen among those in the least deprived neighbourhoods (after controlling for age, sex ethnicity and dental visiting). They were almost three times as likely to be edentulous. While, over recent decades, there has been some improvement in tooth retention among New Zealand adults, much remains to be done, particularly for the substantial proportion of the population for whom the situation is worsening, most notably some Māori and Pacific people, and those living in poverty (Robson et al, 2011). Overseas findings also highlight the existence of profound inequalities in oral health, noting that the link between social position and poor oral health persists when factors such as age (Sanchez-Garcia et al, 2007), ethnicity (Robson et al, 2011), gender (Jatrana and Crampton, 2012), rurality (Wallace and MacEntee, 2012), and mental illness (Burchell et al, 2006) are taken into account. As reported by Peres et al (2011), participants in a life-course study of poverty and oral health who were always poor had the highest experience of unsound teeth by their mid-20s; the higher the number of episodes of poverty, the greater the number of diseased teeth in adulthood, even after controlling for influences such as smoking, dental visiting and diet. These findings support those of the Dunedin Multidisciplinary Health and Development Study, in which people who remained low-SES through the life-course had much poorer oral health as adults (Thomson et al, 2010), and the socio-economic differential increased with further ageing (Thomson, 2012).

While such survey data provide excellent information on the occurrence and socio-demographic associations of oral conditions and self-care, their capacity to provide insight into the meaning and mechanisms underlying the observed differences is limited. Thus, the 2009 national survey data (Ministry of Health, 2010) tell us much about the nature of the social differences, but they tell us nothing about either what led to them or how best to intervene in order to reduce them. A better understanding of the culture of oral health and self-care among low income adults in New Zealand is required so that interventions to improve people's oral health are effective and practicable rather than judgmental and ineffectual (Exley, 2009). Accordingly, the aims of this study were to: explore the meaning of oral health and oral self-care for low-income families; identify barriers to the attainment of good oral health; and explore poor New Zealanders' own suggestions for improving their oral health.

METHODS

Ethical approval was granted by the Northern X Ethics Committee (Ethics Ref NTX/12/02/012), with written support from the Ngai Tahu Research Consultation Committee. The study drew on 40 open-ended interviews with participants selected using a purposive sampling technique through a pre-enrolment interview with researchers in which ethnicity, sex and age were determined for each participant in order to reach the sampling pattern outlined in Table 1. The project was oversupplied with participants in response to the recruitment leaflets which were distributed through grocery stores and local community group centres. Twenty potential participants were turned away before word 'spread' that the project had ceased recruiting. Data saturation was achieved at around 20 interviews. A literature review on relevant readings was created from which a schedule of interview topics was prepared. These included background definitions and understandings about oral health, beliefs and values pertaining to oral health, regular practices, key experiences and some possible scenarios involving oral health to capture aspirations and projected concerns. Interviews were open-ended (Madden, 2010) and the consistency of interviewing techniques was monitored by the senior researcher (RPF). Interviews ranged in duration from 30 to 50 minutes.

This study accepted self-derived evaluations from participants with incomes of less than $20,000 per year per adult family member of the household. Data presented for the Otago and Southland areas in the Atlas of Socio-economic Deprivation in New Zealand for 2006 (Ministry of Health, 2008) indicate pockets of the highest quintile of deprivation in Dunedin City, and our

sampling included participants in this situation as estimated from agreement in their life histories (and from fieldwork observations during interviews) with the 8-question indicator of deprivation from Salmond et al (2006).

Participants included tertiary students, underemployed people (working on part-time wages for as little as 10 hours per week and actively seeking further work), seasonal workers, workers on commission only, people who had been made redundant, and families whose size increased or diminished as members of the extended family moved in or out of the household. In the latter, the principal wage earner may have earned a comfortable salary of perhaps $50,000, but this was spread across 5 adults and children with very little other income. Collectively, these accounts reveal the complexity of pathways into living in a lower-income household and the temporal moves in and out of economic deprivation which Carter and Imlach Gunasekara (2012) observed are typical for some New Zealand households. A few participants reported incomes of less than $15,000 per year.

Table 1 summarises the self-identified ethnic group memberships of participants. We note that many individual participants shared their identities at a more complex level.

The research experience was designed to express a sense of manaaki (hospitality) to all. Enrolment into the project frequently involved a series of extended questions and answers about the project with more than one family member. Once enrolled, participants were offered a choice to work with researchers whom they did not know or researchers of a similar cultural background or gender to them, thus allowing some agency in deciding with whom they would initially share their oral health experiences. Visits to participants' homes were co-ordinated with respect to supplying additional researchers to manage childcare, and polite gifts of food were brought along with the voucher. All participants received opportunities to check through their transcripts (which were verbatim records) and change them if required. They received verbal feedback of the major findings of the study at the end of the research project and were offered opportunities to comment on the draft report. Data were anonymised to the degree requested by participants and stored in password-protected electronic files. Participants were allowed to choose the acronym or pseudonym through which their material was attributed in the final manuscript.

Analysis was through simple thematic coding of emergent shared themes (Hammersley and Atkinson, 2007) with interviewing technique and coding checked for consistency across all workers and categories by the senior researcher (RPF) on a weekly basis. The final data analysis was undertaken by the senior researcher using nVivo qualitative database software. The epistemological approach to the analysis was an interpretative CMA (Critical Medical Anthropological) perspective in which particular attention was paid to both language and to embodied interview responses including associated moods, hesitancies, and body gestures, which were all transcribed, verified by the interviewees in their reading of the transcripts, and then analysed and reproduced in the findings. All interviewees received a $50 New World grocery voucher for participating.

Table 1. Overview of participants' sociodemographic characteristics

	Gender		
Ethnicity	**Male**	**Female**	**Total**
Asian	1	6	7
Pacific	3	5	8
Māori	6	4	10
Pākehā	5	5	10
Long-term migrant	1	4	5
Total	**16**	**24**	**40**

RESULTS AND ANALYSIS

Five key themes emerged from the interviews. These were: (1) oral health understandings for self and wider family groups; (2) the complexity of understanding cost in relation to oral self-care; (3) oral self-care tools and daily oral health routines; (4) relationships with oral health workers and the meaning of good and bad care provision; and (5) the State's involvement in oral health. Each is discussed.

THE MEANING OF ORAL HEALTH

The meaning of good oral health which emerged from the project participants was multifaceted and very broadly conceptualised, comprising 6 elements. (1) Good oral health emerged from the interviews as part of a holistic vision of health in which people could participate happily in their families and communities while being able to laugh freely, eat a variety of foods and speak clearly, from their earliest youth into the oldest old age. (2) Good oral health meant the absence of pain, infection and decay, with strong teeth (arranged in the appropriate order and shape), clean tongues, strong pink gums and fresh breath. (3) Good oral health also meant easy and very low-cost access to safe, efficient, respectful health practitioners who would work to preserve teeth and communicate well with their clients. (4) When people experienced good oral health, they would be able to access complex restorative dentistry in order to retain their teeth as long as possible, and partial or full dentures would become a thing of the past. (5) When people experienced good oral health, there would be no difference between those born with "good" teeth and those without. (6) Good oral health would also reconnect people with an array of very positive feelings with the mouth, rather than guilt, shame or embarrassment.

As the interviews revealed, the mouth is an area of considerable cultural significance. There was a sense of the need for privacy in viewing the mouth and its interior, concerns for the potential impropriety over the degree of contact between opposing genders during an oral examination for some of the older female Pacific Community members, and a sense of being shy (or being made to feel shyness) if one were to have one's mouth examined. The participants who identified as Pākehā or as long-term migrants to New Zealand also demonstrated shyness and concern about being judged on their oral health status and knowledge[1].

All interviewees prioritised the health of the teeth at the front of their mouth, showing far more acceptance of lost, damaged or filled teeth if they could not be viewed when laughing or speaking. For nearly all of the participants, teeth were a highly valued aspect of living; those who had missing teeth were eloquent about the importance of a full dentition for masticating food, and the

[1] *The authors acknowledge with gratitude the generosity of participants in sharing such personal matters from their lives.*

negative effect that poorly chewed food had upon health. Most participants wanted to retain their teeth for as long as possible.

'Good genes' and 'heredity' were the key understandings of why some participants' teeth were 'good' or 'bad'. This was followed by diet (which, for the most part, accorded with contemporary professional directives on good diets), brushing the teeth and attending the dentist as positive influences. For two interviewees, the drug P and treatment for addiction with Methadone were also negative influences on oral health. Most participants identified smoking as a major negative influence on oral health (including the 11 who smoked). Only three participants considered fluoride in water to be damaging for the teeth, with most being unaware of it and, when informed, commenting that the Council would make such decisions with their best health interests in mind.

THE COMPLEXITY OF UNDERSTANDING COST IN RELATION TO ORAL SELF CARE

Participants were (for the most part) well aware that seeing a dentist would improve their oral health, but the cost of those services was a substantial barrier. As those participants who recognised that they had oral health problems struggled to organise ways of accessing appropriate health care, the complexity of the task of finding the money to do so took time, and this time (in passing) could outstrip the ability of teeth and gums to "last the distance". For example, consider how complex a social task it would be to make a transition from sleeping rough in the bush to finding a job and accumulating savings in order to get one's teeth "sorted out". Add to this the complexities of finding a job where a visibly poor dentition would be acceptable and would not interfere with the applicant's chances of securing the job. Time and cost were also carefully calculated by participants with regard to the "value" of having a dental check-up when one could not possibly afford to have the restorative work that would be recommended subsequently. For long-term migrant residents, the problem could be resolved by "dental tourism".

The cost of oral health care impacted negatively on people's aspirations for good oral health, in varied ways. For example, it was also a component of the reasoning over which treatment option to take up:

> *Participant: So, yeah, when you're looking at $1900 [for root canals that I paid for my other bad tooth] and $60 [for an extraction for this current bad tooth] it's a … a hard choice to make, but I knew that, you know, I have two kids to raise and it was like I could spend that much again on a tooth or just actually whip it [the current problem tooth] out.* (A.J. 17.5.12)

Cost figured also in whether people could indulge in their aspirations to be cared for by a fully qualified dentist or continue to accept the attentions of students at the Dental School; the latter was not what they preferred, but it was all that they could afford. Floss was also an aspirational item for most participants. People who visited the Dental School spoke of being given floss at their visit, but noted sadly that this was only on the first visit; after that, they were required to buy it. Several people who participated in the study spoke of having given up on any improvement in their oral health and being only able to imagine accessing complex restorative work with the aid of winning Lotto, "waving a magic wand", or otherwise "in my dreams".

A variety of pathways emerged that participants had discovered to find access to partially-State-funded care, but we note here that the bureaucratic nature of these pathways in themselves provided a barrier to people's access to care. For example, when incomes were extremely tight, the offer of compensation for costs already encountered was, in effect, the refusal of State-provided care for accidental tooth injury:

> *Participant: Yeah. Yeah. But as I said, when I went through the ACC process umm I … [pause]*
> *Interviewer: You had to pay for a consulting fee?*
> *Participant: Yeah, it was like $530 I think it was, so that's what was the barrier.*
> *Interviewer: So you didn't have that money at that time?*
> *Participant: Yeah I didn't continue…*
> *Interviewer: And that process slipped away?*
> *Participant: Yep. Pretty much.* (P. 23.5.12)

The quite variable nature of how low a low income could be meant that some participants, even if offered lower rates and payment plans, could not afford the care because, at a repayment rate (for example) of $10 per week, it would not be possible to completely pay off the debt from one dental visit before needing to return for another visit the next year. Several people commented on this problem and explained that this was why they might go to a dentist when they had some additional income, receive a temporary filling for a tooth, and then never have enough money to go back and get a permanent filling inserted. The dentists who entered into these particular arrangements of offering temporary fillings as a cost saving measure imagined that the situation could be remedied in a few more months and were not aware that they were (in effect) sending people away with a temporary filling as the final treatment that the affected tooth would ever receive.

This demonstrates the manner in which health care workers' and clients' preconceptions and assumptions about each others' lives and ability to pay for services cloud communication and mean that well-intentioned advice or interest can be irrelevant to the circumstances in which clients are currently living. An example occurred during data collection when an interviewer asked about whether the person had difficulty with having food such as meat caught between his teeth. The participant responded that this was not a problem, but only because no-one in his family had been eating meat at all recently, because they could not afford it.

Cost interfered with the capacity to obtain the simple elements of daily oral self-care. Interviewees frequently reported not buying the toothpaste or the toothbrush that they preferred because their budget constrained them to only the very lowest-cost items. Several people spoke of the need to ration toothpaste; one woman commented proudly that, by being very careful, she used only two tubes per year.

One participant broke into tears in explaining how she knew very well that a budget advisor would recommend putting away $5 per week to help pay for oral health care, but, living on her own with a toddler, she couldn't manage to spare even $5 a week for savings. Many participants operated on a hierarchy of needs in their family lives, and the dental care of others in the family took precedence. The cost of the mortgage or rent and food was more important than dental care, and the need to get a job came before accessing dental care because one needed to pay for it (and this was so for even the most Government-subsidised forms of treatment). Dental pain needed to be serious and to have been experienced for several months before it became something to be

acted upon, and so the hierarchy of needs might favour backyard tooth extraction over professional services.

Other strategies for cost management included sharing out the cost of care (especially extractions and dentures) among wider members of the family. People who were currently in employment rostered their trip to the dentist so that it was on their pay day. Others used the option of paying off the Dental School in instalments. Some management strategies were contradictory: some opted to manage the cost of care by not getting work done, while others opted to manage it by getting as much work done as possible. The people who went regularly self-identified as having "good teeth", while those who opted out were very aware that the cost of imminent work was going to be catastrophic, and so they delayed it for as long as possible. Borrowing was another strategy that several people considered, either by using a credit card (if the person had access to one) or by borrowing from other family members or from loan companies that advertised short-term cash loans on TV. Others noted the problems of borrowing and the high interest rates charged, and the dilemma of already having loans that they were trying to clear. One person used a corporate dental provider which offered cut rates to lower-income people. One person mentioned that having private health insurance that covered dental work, and another mentioned that the family had a small stockpile of emergency savings that they would use to pay for urgent dental care.

There were a few references to fine dentists who offered their services at extremely reduced rates to people in need and who would also allow clients to pay off their dental bills over time, or who would accept the WINZ emergency loan as the total charge for their services. However, it appeared that dentists such as these were in the minority and that people travelled long distances to avail themselves of such a dentist if they knew of one or could broker an introduction to one.

ORAL SELF-CARE STRATEGIES

While parents taught their children the techniques of oral self-care, stoicism was the most frequently used treatment strategy after the cessation of free dental service at 18. Consider the following example of self-ascribed 'ordinary wear and tear' on teeth.

> *Participant: … I ate some paua around 2007 and there's – like there's a – I thought it might have been a shell stuck in the back of my tooth down the bottom…But it possibly could be a hole but then again, I don't know*
> *Interviewer: Yeah, do you experience pain at all?*
> *Participant: No, nothing at all. No, it's (the tooth is) just black.*
> (Joshua 22.5.12)

Other strategies were elaborated to take care of dental pain, such as tincture of cloves, Bonjela™, and the massaging of gums. A Māori traditional remedy (Kawakawa) was prepared as a drink and used by one interviewee. The aim of all of these treatments was to soothe and to numb the tooth. Another participant recommended salt water gargling and was currently using this, with the prospect of painkillers as a reserve strategy if the salt water did not fix the problem. Another mentioned that applying toothpaste directly to a sore tooth could help relieve the pain, while another method of pain management was to avoid brushing near the painful spot. Waiting to see whether the situation would resolve itself was another strategy pursued by one participant with an abscess. She had found that the abscess would 'resolve' for a few months and then return, but she had more recently gone to get a prescription for antibiotics when the swelling was such that her nose started to stick out a different angle to normal.

Difficulties arose when interventions did not remove the pain. People would then either seek out emergency dental services to remove teeth, or remove the tooth themselves, with six out of 40 participants recounting backyard tooth removals. Avoidance of care-seeking was another way in which people could manage their oral health; as one participant noted:

> *It's a bit like taking the car for a warrant. I sort of avoid it as long as I can, just 'cos I don't really want to know what I'm going to find out and I don't really want to have to spend the money either* (AL10.5.12).

The perceived very high cost of going for a brief check-up that revealed no problems created the foundation for future avoidance of dentists, because check-ups were understood to be paying for nothing. If all else failed, people sometimes had to resort to emergency treatment which, if one were unemployed, had to be accessed through Work and Income New Zealand (WINZ). Participants who had been forced to take this pathway were uniform in their disgust for the negative and condescending attitude of WINZ staff, who refused to acknowledge any situation as an emergency unless it was accompanied by a report from the Dental School. Such a report would enable access to a loan of $300, which was insufficient money to pay for restorative work and always resulted in the tooth being extracted. Several participants commented on the curious manner in which the Government appeared by this policy to be differentially extracting the teeth of poorer people, and showing no interest at all in promoting restorative dentistry and preventive care. One older participant, as he began to think more deeply about the issue, mused that he had never had a tooth filled in his life and didn't actually know what that would feel like; instead, many of his teeth had been extracted sequentially via the WINZ dental emergency loan scheme (Chris 10.5.12).

The Accident and Emergency department was another avenue of assistance in emergencies; it could provide analgesic relief for serious dental pain, followed by a referral to the Dental School the next day. There were also two accounts provided by participants of attempting to access care through the emergency dental service provided in the telephone book. In one case, the participant received no response at all after ringing the number for several hours; in the other, the emergency dentist refused to give adequate pain relief, claiming that he didn't "know" the patient's history and so left him to endure the weekend with only 4 pills, clearly to be used judiciously…

The only positive stories of emergency care which emerged from the study were the two cases in which participants had experienced accidental tooth damage that was covered by ACC. In this instance, complex restorative dentistry was provided free of any charge.

RELATIONSHIPS WITH ORAL HEALTH WORKERS

Most participants reported strongly negative feelings towards dentists commonly originating in childhood. Given the episodic nature of participants' attendance for dental care, these negative impressions and experiences were often not counterbalanced by access to modern treatments or more comfortable clinic settings, and they were burdensome to overcome in order to seek treatment (provided that one could pay for the care

being sought). Positive views were held by only 4 out of 40 participants.

The idea of good care included technical competence, efficiency, and a courteous demeanour with good communication skills; it also included the provision of a relaxing and clean clinical environment with up-to-date furnishings. Participants expected that good dentists would perform a general checking over of all teeth as well as spend a few moments conversing in a friendly manner with their client in order to explain their procedures and demonstrate respect. Participants who had attended the Dental School service were still surprised and discomfited that the attending dentists did not remember them, even after several visits; moreover, while not expecting the Dental School to be "cushy", they did welcome civility. Although unable to pay for what they called the "high end" private dental services, they held aspirations that one day they might have enough money to pay for a clinic where they could have a TV in the ceiling to watch while having their dental work done, and faster treatment that was closer to their homes. Participants were not always happy to use a dentist who was known to be "cheap", and neither were they impressed by dentists who worked too quickly. Some also had reservations about the quality of the dentistry offered through the Dental School, while others thought that the Dental School embodied the highest standard of care (and that private dentists were more doubtful in ability). Even participants in the poorest of situations preferred to have the recommendation of a known friend or neighbour before considering whether to visit a particular dentist.

Professionalism also had its less pleasant side, in terms of overbearing authority. For example, several interviewees spoke of the moral quality of dental visits, in which participants understood themselves as being held to account for their lifestyles and personal hygiene according to the state of their teeth. They were also inclined to assess their own moral worth in this regard as well, and too much reflection on poorly achieved oral self-care could cause people to avoid the dentist even further because of guilt. This moral quality of the clinic visit raised quite strongly negative emotions for one participant, and several resented the officious nature of some clinical consultations when people thought that they were being lectured to. Another unpleasant side to the relationship occurred when people went to see a dentist hoping to receive discounted treatment, only to be refused; for example, the following long-term migrant resident of Dunedin recounts:

> *I also heard about emergency dental care and people can qualify for it if they present with toothache or tooth infection, so they can go to Government contracted dentist and ask them to fill in a form for you. I asked my dentist about it and she said "well, as far as I'm concerned your condition is not severe enough so I think it is not fair for New Zealand taxpayers to fill this out for you." I was quite upset about what she said, 'cos she's quite judgemental, you know. I'm never going back to that dentist any more 'cos from my opinion she just treated me [like that] because I was enquiring about this subsidy.* (Mr G 17.5.12).

Another interviewee confirmed this attitude, saying that such people were regularly referred to by staff as "another WINZ quoter" or "just another WINZie – I wonder how bad his teeth are?". There were also other stories from a minority of participants in which dentists' behaviour seemed to be primarily focused on gathering money from clients as quickly as possible (through, for example, seeing too many clients in an hour and not engaging in any small talk).

THE DENTAL SCHOOL

Among the participants who knew about the Dental School and attended it (21 out of 40), there was a sense of quiet dismay that New Zealand citizens who were resident outside Dunedin did not live in a town or city with access to such a service. One participant specifically mentioned coming to live in Dunedin because it would mean access to the Dental School. The complex role of the Dental School in providing both (a) training to an array of dental health professionals and (b) limited emergency and general oral health care to (primarily) lower-income citizens was noted by several of the participants. A variety of opinions had been formed about the quality of the service as a result of this. One of the recurring observations in respect of the service provision was the need to wait substantial amounts of time, as follows:

> *Participant: Like in the next couple of weeks [I'll go] over to the Dental School because it's not really something you can run in and make a lot of noise [about], I've found when you're like: " Oh, it hurts!" they see you faster.*
> *Interviewer: Yeah.*
> *Participant: Yeah, but that's six hours and I work two jobs so to get that much time off just to go sit and wait is sometimes hard.*
> *Interviewer: Yeah,*
> *Participant: I'd have to actually plan it. But I'm going to plan an emergency visit.* (AJ 17.5.12)

The apparent oxymoron of having to plan an emergency visit began to make more sense to the researchers as we heard repeated stories of participants who were being seen by the Dental School having a dental treatment broken into stages and then being asked to return to the waiting room to wait for additional aspects of the service. When x-rays were required, people gave accounts of waiting for over three days for the full treatment to be received, and of needing to return each day to wait. It is also important to note that figures about episodic attendance at the Dental School for symptomatic pain relief do not transparently represent an individual's motivation to attend the School for treatment. The logistics of managing child care and part-time (and thus very significant) work opportunities meant that people weighed up very carefully when they could attend, because they were incorporating the extremely lengthy waiting period for service into their calculations of the likely duration and cost of the visit. Several people reported having to walk out of the queue for treatment, even though part of their treatment had already been delivered, because of the pressing need to provide child support or their being offered an opportunity to work an additional shift at short notice. Thus, failing to complete treatment could be the result of rational planning and attentiveness to the constraints of one's budget rather than lack of interest in (or fear of) the dentist. Only one of the 21 people who had attended the dental school had walked away because of fear (in this particular case, of the injecting needle). Thus, what was ostensibly random attendance with well-advanced tooth decay was—for most of the participants in this study—a carefully orchestrated and complex arrangement of multiple trade-offs between the conflicting requirements of work and family obligations, and the cost and lengthy waiting

time associated with receiving subsidised care. For the above participant (and for several others), delay in presenting until pain was extreme was a rationally-thought-out plan for ensuring that less time was spent in waiting.

The 19 people who sought dental treatment elsewhere in Dunedin (of whom some were aware of the Dental School and several were not) spoke about concerns over having students "learn" on them, and the unpleasantness of students' "lengthy fiddling" inside one's mouth while they learned various procedures. They also cited the lack of continuity in care, and the extraordinary length of time spent waiting in queues as the reasons for their not attending the Dental School. All of these aspects of the care at the School were also triggers to intensify anxiety and phobia even further; several of the members of this group suffered such concerns and considered that these triggers were best avoided. The result was that, when participants in this group had periods of good cash flow, access to credit cards, or found a dentist who would accept terms (which happened very rarely), they would attend a private dentist; when money was tight, they became what health professionals would describe as episodic attenders.

THE STATE'S INVOLVEMENT IN ORAL HEALTH

The interviewees had had ample time to reflect on ways in which the State could better provide oral health care services to lower-income people, and they frequently pointed out the absurdity of excluding oral health from broader concepts of health (and hence the provision of health care services). Interviewees' simplest suggestion for ameliorating this inequitable situation was to suggest that dentists accept Community Services Cards in the same manner that doctors did. Many participants suggested that the logic of requiring people to pay full prices for treatment at private clinics or the reduced rates of the Dental School was an explicit decision by the New Zealand Government to fail to provide restorative oral health services to lower-income families. Several participants also suggested that it would be sensible to have check-ups and assessments free of charge. The reason behind this suggestion was that the $60 or so charged for this service to simply find out what was "wrong" often used up all the unassigned cash for the family for the month, and to no particular benefit because finding out how to remedy the problem was usually completely beyond the household's means. Accompanying this need for a reduction in the costs of treatment was the need for a shift in care away from emergency management and into preventive oral healthcare, according to several participants. In making these suggestions, there was no sense that participants were seeking to avoid paying; rather, they were asking for fees to be adjusted relative to the amount of income they received. It was also suggested that toothpaste, toothbrushes and floss be subsidised for low-income families so that they could buy them for $1 or 50 cents. As one interviewee commented about this idea:

> *Who knows what could happen…you might get another 10,000 smiling people picking themselves up and getting better jobs! Who knows?* (Rangitakao 21.5.12)

The excessive bureaucracy associated with emergency treatment was frequently mentioned. One participant, for example, observed that WINZ and the Dental School were all part of the Government to some degree, and he/she asked why it was that the Dental School could not simply check that a person was receiving an allowance and then apply the $300 loan limit to cover their treatment and begin it immediately. Instead, the current system had people with abscesses and cracked or broken teeth walking backwards and forwards across the city in order to tick the necessary system boxes in person at each office before accessing treatment.

While their suggestions for improvements were reasonable and logical, participants were under no illusions that the Government would have any interest in their ideas or their oral health. Several participants spoke of their powerlessness to be heard by Government in fairly bleak terms: "What would be the point of me saying, 'Yes, they should be doing lots!' They're not going to listen to me." (Chris10.5.12). Interviewees felt themselves targeted for systemic neglect: "… You can pretty much tell people that are on the benefit too … By looking at their teeth. They have lots of missing teeth … you know straight away" (RG 23.5.12).

CONCLUSIONS

As a qualitative study, these findings represent only the views of those who contributed to the study, not those of the wider New Zealand population. The project's value instead lies in providing rich context to previously published quantitative studies which have noted cost as a barrier to accessing dental services. Our study explores the lived experience of this barrier. Because of the presence of the University of Otago Dental School in Dunedin, this study represents a "best case" scenario of the oral health care practices of local lower-income families, given that few other areas in New Zealand have attempted to provide subsidised oral health care for adults (Jatrana et al, 2009). That the majority of study participants were unhappy with their current state of oral health (with a subset describing themselves as 'miserable') reflects the well-known relationship between economic deprivation and poorer oral health, not only among New Zealanders but around the world. The far smaller group of participants who reported good oral health attributed that to having the luck of "good teeth" from birth, rather than to receiving regular oral health advice and treatment from health professionals, although following good oral health practices within the home was also understood to have contributed to maintaining such good (and lucky) teeth; most of the study participants (whether with "good" or "bad" teeth) maintained these practices anyway. As also noted by Bedos et al (2009) in Canada, these interviewees gave high importance to oral health, recognising the link between good oral health and self-esteem; however, their understanding of oral health was more holistic than that of the Canadians and US-based interviewees (Handwerker and Wolfe 2010). Robson et al (2011) also noted this holistic understanding of oral health among New Zealanders.

Some specifically female-gendered oral health experiences were revealed in this study's participants. For example, Jatrana and Crampton (2012) noted that New Zealand women preferentially ensure the provision of health care to other members of the family before themselves, and our own localised findings are in agreement for oral health. In addition, the women and some of the men in this study commented on the link between pregnancy and poor oral health, and this was even though participants readily acknowledged that this was understood to be "an old wives' tale", as they termed it. In a study of Canadian mixed race children's oral health as assessed by mothers with and without

access to dental health care services, Grembowski et al (2009) found that children's oral health was assessed as a mean 0.2 points higher on a scale of 1 to 5 by the mothers who had access to oral health care providers. This finding—together with the prevalent understanding of pregnancy as a risk for oral ill-health within our own sample—suggests some longer-term cost advantages for Government-supported care for prenatal oral health checks. Findings from a recent survey of the oral health practices and knowledge of 231 pregnant women in south-western Sydney by George et al (2013) suggest the need for routinised provision of antenatal oral health care, given the barriers to service and information demonstrated by lower-income participants in that survey.

The contradictions and tensions for the Dental School—in teaching patient-centred and evidence-based dental care while also providing a service in surroundings that did not offer privacy and under tight fiscal constraints—were acute and unsurprising. Internationally, there are similar ethical tensions created through insufficiently State-subsidised treatment (Wallace and MacEntee, 2012; Quiñonez and Figueiredo, 2010). The damaging results of the exclusion of oral health from an overarching New Zealand Primary Health Care Strategy have been extensively commented upon by Jatrana et al (2009), and there has been an international call for patient-centred dental practice to include the dental health aspirations of the lower-income members of society (Bedos et al, 2009) in an effort to avoid what Chaves and Vieira-da-Silva (2008) termed a "mutilative" social policy. The WINZ emergency loan scheme was certainly viewed by our study participants as an example of such a policy. In addition, the Government's lack of response to this situation of need was interpreted by the participants as a targeted lack of interest in New Zealand's poorer citizens and viewed by them as paradoxical given what many perceived as the relative over-involvement by the Government in primary health care campaigns in other aspects of their lives.

While studies such as that of Handwerker and Wolfe (2010) suggest that (in the Northeastern US at least) financial barriers to service provision cannot fully explain the relationship between lower income and poor oral health, the participants in the current study strongly identified cost as the single most important barrier preventing access to better oral health. Jatrana et al (2009) echo this concern, noting that the highest challenge for the integration of oral health into primary health care in New Zealand is to overcome the obstacle of cost. To recognise cost as such a barrier to care that it renders even heavily subsidised treatments unaffordable requires a considerable conceptual leap for policy-makers and health care professionals on comfortable incomes. This persistent and fundamental problem of cultural translation across degrees of affluence must be addressed in order to effectively change practices, policy and educational opportunities for poorer people. Such a challenge has also been noted by others (Chaves and Vieira-da-Silva, 2008; Wallace and MacEntee, 2012; Loignon et al, 2010).

The reinforcement of these localised findings with those from existing wider quantitative studies of poorer New Zealanders' oral health adds additional weight to existing recommendations for further action in developing policy which includes oral health as part of primary health care delivery and which would assist the Dental School to provide patient-centred care to community members living on lower incomes.

ACKNOWLEDGMENTS

We thank the New Zealand Ministry of Health for funding the study (Contract number 340734/00).

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