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Pasifika adolescents' understandings and experiences of oral health care

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Abstract

Background and objectives: Inequities in Pasifika adolescents access to dental care services and oral health care outcomes exist. Few studies have explored potential reasons for these disparities or Pasifika adolescents' understandings of oral health and experiences of dental care in general. This study aimed to explore groups of Pasifika adolescents' understandings of oral health and their experiences of dental care. A further aim was to identify potential barriers to, and facilitators for accessing dental care services.

Methods: A mixed method approach was utilised. A secondary analysis of data collected for the *2009 Our Oral Health Survey* was undertaken, while 17 peer researchers facilitated qualitative focus groups with 59 Pasifika adolescents from four cities. An inductive thematic analysis of the qualitative data was undertaken.

Results: Pasifika adolescents' were less likely to access to dental care services compared with their 'other' counterparts. Barriers to accessing dental care services included: a lack of structured appointments, prior negative clinic experiences, feelings of embarrassment or awkwardness, perceived costs, and less emphasis placed on individual oral health in collective Pasifika cultures. Facilitators to dental attendance included: enjoying the feeling of having clean and healthy teeth, receiving free gifts and oral hygiene advice, and for some, seeing members of the opposite sex in the clinic and getting out of class.

Conclusion: Numerous changes are needed at the societal, community, and clinical practice level in order to bolster dental attendance amongst this dentally underserved population.

Background

Young people aged 12 to 18 years can access free (publicly funded) oral health care through the Community Oral Health Service (usually provided by dental therapists and oral health therapists as well as the Oral Health Service for Adolescents) usually provided by private dentists contracted by District Health Boards (Børsting et al, 2015). Despite the availability of these services, NZ adolescents are less likely than adults (excluding the very old or edentulous) and children to access oral health care (Børsting et al, 2015; Ministry of Health 2010; 2015). Additionally, Pasifika adolescents are less likely to access the free annual dental check ups than New Zealand European adolescents (NZE) (Teevale, et al, 2013), and NZE and Other (NZEO) adolescents (excluding Māori) (Børsting et al, 2015), and NZEO and Māori adolescents (Areai et al, 2011). These findings lead to concerns that current models of health care, including oral health care, are not adequately meeting the needs of all New Zealand adolescents (Areai et al, 2011).

There are few studies that have sought to explore this further for Pasifika youth. One study of 1178 Pasifika students (aged 13 to 17) reported that the Pasifika participants were twice as likely as their NZEO counterparts, not to seek primary health care (including dental care) when needed (Teevale et al, 2013). Reasons given for this included: not knowing how to access health care, not being able to contact their healthcare professional, or a feeling that they 'could not be bothered'. A troubling finding was that Pasifika youth were three times as likely to report experiencing ethnic discrimination at the hands of their healthcare professional (which is likely to include oral health care professionals), than their NZE counterparts.

Further work has used focus groups to explore Pasifika adolescents' understandings of oral health (France et al, 2017). Key barriers to accessing oral health care included past negative clinic visits, unsupportive dental practitioners, a lack of arranged dental appointments, and confusion resulting from a mismatch between what parents teach their children about oral health and what they do themselves. Facilitators for accessing oral health services included: having strong awareness of the functional and aesthetic importance of teeth, being treated by supportive dental practitioners and Pasifika dentists, and welcoming clinical environments.

In order to deliver healthcare that provides equitable outcomes for Pasifika peoples, further research focusing on Pasifika people's perspectives is required (Ministry of Health 2008). The overarching objective for the study was to inform approaches to reduce inequities in oral health care access and outcomes experienced by Pasifika adolescents. Within this overarching objective were the following research aims: to identify groups of Pasifika adolescents' understandings of oral health and their experiences of oral health care, while simultaneously identifying potential barriers to, and facilitators for accessing oral health care services.

Methods

Mixed methods were utilised to gain an overall picture of Pasifika adolescents' access to oral health services and their experiences of oral health care. These included a secondary analysis of Pasifika data contained in the

national survey of oral health *The 2009 Our Oral Health Survey* (Ministry of Health 2010); to provide a statistical overview, and a series of peer faciliated focus groups discussing oral health in more depth. Prior to the project beginning ethical approval was sought and given by the University of Otago Ethics Committee (reference 16/147) and consultation was undertake with the Ngai Tahu Māori Health Consultation Committee.

The *2009 Our Oral Health Survey*

Access to the raw survey data was obtained from Statistics New Zealand. Only the data collected for survey questions that directly related to the research aims and objectives were selected for secondary analysis. These questions focused on adolescents' access to dental care services, their self-rated oral health as well as questions that could lead to the identification of barriers to, and facilitators for, accessing dental services.

The *2009 Our Oral Health Survey* data was collected using separate questionnaires for children (0-14 years) and adults (15+ years). Adolescents are defined as aged 13-19 years, so our analysis called on both datasets. However, given the variation in questions asked between the age groups, and the scope of this paper, only the data contained in the adult section (Pasifika adolescents aged 15 to 19 years) of the *2009 Our Oral Health Survey* is presented.

Ethnicity was determined on the basis of the Census and Statistics New Zealand ethnicity classification (Ministry of Health 2010). If a participant identified with at least one Pasifika ethnicity, they were included with the Pasifika group (Ministry of Health 2010). People who identified as not having a Pacific ethnicity were included in the 'other' grouping. For an outline of the socio-demographic information on the survey participants see the *2009 Our Oral Health Survey* (Ministry of Health 2010).

All statistical analyses were carried out using Stata version 15 (StrataCorp 2017). To allow for the complex survey sampling design, survey prefix and sample weights were applied. Population estimates (proportions reported as percentages) with 95% confidence intervals were obtained.

Peer facilitated focus groups

Pasifika adolescents (aged 14 to 18 years) were recruited to faciliate focus groups with other Pasifika adolescents. Peer researchers were recruited through approaching Pasifika community groups and schools (in Auckland, Christchurch, Dunedin and Invercargill) and informing them about the study. After the first author met with Pasifika adolescents who expressed an initial interest in participating and gathering their informed consent (or proxy parental consent for those under 16 years), 17 Pasifika adolescents were recruited and trained as peer researchers (13 female and 4 male). The peer researchers were from a variety of ethnicities including: Samoan (7), Tongan (6) Cook Island (2) and two were Samoan/Māori. The peer researchers were recruited as a convenience sample, that is, on the basis of who volunteered to participate.

The peer researchers conducted 16 focus groups (two jointly faciliated one focus group), utilising a semi-structured interview schedule provided by the adult researchers, with a total of 59 Pasifika adolescents (39 females and 20 males who were aged 12 to 19 years). The interview schedule was informed by the first author's reading in the field and consultation with the members of the research team. The interview schedule contained a series of open-ended questions designed to gather in depth accounts of the participants' understandings of oral health, their experiences of dental care, the importance they placed on oral hygiene, what aspects that they considered dental professionals needed to understand about Pasifika culture and adolescents, and finally the barriers to, and facilitators for accessing oral health care services.

The focus group participants self-identified as Samoan (28), Tongan (12), Cook Island (5), Samoan/Māori (4), Kiribati (4), Tokelauan (1), and Fijian (1). Three peer researchers also undertook focus groups that included Māori and NZE participants. Due to the low number of these participants; however, it is likely that their responses were overidden by the Pasifika adolescents' comments. Unfortunately, three Auckland peer researchers did not successfully record their focus groups. A total 13 focus groups were transcribed by the first author and included in the analysis.

LS and RR undertook a parallel inductive thematic coding of the focus group data, where they independently identified patterns or themes that emerged across the focus group transcripts (Thomas 2006). A parallel coding was undertaken because this arguably, leads to more robust findings (Pope et al, 2000). The two authors then compared their lists of initial identified themes, which were found to be largely consistent. The four categories identified included: the clinic, families, Pasifika cultural contexts, and suggestions for change. This article reports the barriers to, and facilitators for regular dental attendance, which were identified under the numerous themes grouped under the first three of these categories.

Results

Self-reported oral health experiences

Findings from secondary analysis of Pasifika adolescent data contained in the adult section of the *2009 Our Oral Health Survey* showed that Pasifika adolescents (15 to 19 years) were more likely to report not having visited a dental health professional in the past 12 months (68.9%), compared with 'other' adolescents (36.4%) (Table 1). When asked to describe the health of their teeth and mouth 29.4% of Pasifika adolescents rated it as excellent or very good, compared with 48.3% of 'other' adolescents. Over twice as many Pasifika than 'other' adolescents rated the health of their teeth and mouth as poor (10.4% compared with 4.6% respectively).

When asked how satisfied they were with the appearance of their teeth, mouth or dentures (Table 2), more than two thirds of Pasifika and two thirds of 'other' adolescents reported that they were very

Table 1 Pasifika adolescent data contained in the adult section of the *2009 Our Oral Health Study*

Question	Population	Response categories: Percentage (95% confidence intervals)			
Have you been to a dental professional in the last 12 months?		*Yes*	*No*	*Don't know/ refused (combined)*	
	Pasifika adolescents	31.1 (16.6, 50.6)	68.9 (49.4, 83.4)	-	
	Other adolescents	62.9 (53.6, 71.3)	36.4 (28.0, 45.7)	0.7 (0.2, 2.8)	
How would you describe the health of your teeth or mouth?		*Excellent/very good (combined)*	*Good/fair (combined)*	*Poor*	*Don't know/ Refused*
	Pasifika adolescents	29.4 (14.9, 49.8)	60.3 (41.6, 76.3)	10.4 (2.4, 3.5)	-
	Other adolescents	48.3 (38.3, 58.5)	47.1 (36.9, 57.6)	4.6 (1.6, 12.4)	-
In the last four weeks have you had toothache?		*Yes*	*No*	*Don't know/ refused*	
	Pasifika adolescents	36.6 (7.47, 80.4)	63.4 (19.6, 92.5)	-	
	Other adolescents	32.4 (18.9, 49.7)	67.6 (50.3, 81.1)	-	

Table 2 Data on Pasifika adolescents' satisfaction with their dental appearance (in the adult section of the *2009 Our Oral Health Study)*

In general how satisfied with the appearance of your teeth, mouth or dentures?		*Very satisfied/ Satisfied*	*Neither satisfied nor dissatisfied/ dissatisfied*	*Very dissatisfied*	*Don't know/ refused*
	Pasifika adolescents	72.4 (50.3, 87.2)	21.6 (10.2, 40.1)	6.0 (0.7, 38.1)	-
	Other adolescents	65.8 (55.6, 74.8)	31.7 (22.6, 42.4)	1.9 (0.4, 8.9)	0.6 (0.0, 26.9)

Table 3 Data on Pasifika adolescents and the Health and Disability Code of Rights (in the adult section of the *2009 Our Oral Health Study)*

Question	Population	Response categories: Percentage (95% confidence intervals)					
On your recent visits to the dental professional, would you say the dental professional listened carefully to what you had to say?		*Always*	*Often*	*Sometimes*	*Occasionally*	*Never*	*Don't know*
	Pasifika adolescents	57.3 (33.2, 78.4)	11.7 (3.40, 33.3)	14.8 (4.51, 39.0)	4.23 (0.88, 18.1)	-	11.9 (3.64, 32.7)
	Other adolescents	76.2 (67.9, 82.9)	4.94 (2.37, 10.0)	1.51 (0.71, 3.16)	0.82 (0.18, 3.60)	6.48 (2.68, 14.9)	10.0 (5.44, 17.8)
On your recent visits, did the dental professional, discuss with you as much as you wanted, regarding your oral health care and treatment		*Always*	*Sometimes*	*Often*	*Occasionally*	*Never*	*Don't know/ refused*
	Pasifika adolescents	60.0 (33.6, 81.6)	13.1 (4.22, 34.1)	11.8 (3.33, 34.2)	2.42 (0.30, 16.7)	9.24 (1.48, 40.8)	3.43 (0.75, 14.3)
	Other adolescents	70.8 (61.0, 79.0)	10.0 (5.61, 17.3)	3.75 (1.48, 9.22)	5.58 (2.28, 13.0)	4.66 (1.67, 12.3)	5.15 (2.29, 11.2)
On your recent dental visits, did the dental professional treat you with respect and dignity?		*Always*	*Often*	*Sometimes*	*Occasionally*	*Never*	*Don't know/ refused*
	Pasifika adolescents	77.7 (56.4, 90.4)	10.1 (3.82, 24.1)	7.14 (0.73, 44.6)	2.78 (5.38, 13.2)	-	2.30 (0.29, 15.8)
	Other adolescents	90.1 (82.3, 94.7)	4.82 (1.98, 11.3)	0.76 (0.26, 2.19)	2.18 (0.50, 9.05)	1.38 (0.13, 12.8)	0.78 (0.24, 2.47)

satisfied or satisfied. However, the percentage of Pasifika adolescents who stated they were dissatisfied with the appearance of their teeth, mouth or dentures was over three times that of 'other' adolescents (6.0% and 1.9% respectively).

When it came to questions relating to the *Health and Disability Code of Rights*, in the *2009 Our Oral Health Survey*, just over half of Pasifika adolescents (57.3%) reported that they had always been listened to carefully by a dental professional at their last visit compared with over three-quarters of 'other' adolescents (76.2%) (Table 3). Fewer Pasifika adolescents (60.0%) than 'other' adolescents (70.8%) also stated that a dental professional had always discussed their oral health care and treatment

with them as much as they had wanted in their recent dental visits. Moreover, fewer Pasifika adolescents than 'other' adolescents (88%, compared with 95% respectively) stated that they felt like they had 'always' or 'often' been treated with respect and dignity by their dental professional during their recent dental visits.

These results were echoed in the qualitative data where some participants reported that their interaction with their dentist was uncomfortable because s/he did not tell them that their treatment may hurt. For example:

FG14P1[1]: If your teeth wasn't good then they would tell you to … bite on stuff and it'd be like uncomfortable for your mouth and it might hurt, and the dentist, depending on who takes you, they're like might do it without cautioning you, and might hurt you in the process.

Barriers to accessing oral health care

Depictions of adolescence

Almost all of the focus group participants explained that they went to the clinic more as primary school students, when it was compulsory and/or a dental practitioner visited their schools. As adolescents they had to arrange their own appointments, which was difficult because of extracurricular activities, work commitments or alternatively because they, or other Pasifika adolescents, were too "lazy" (FG4P4) to arrange and attend appointments. The following comments typify these responses:

FG8P2: I'm older now and I have more responsibility so I don't have time to go visit the dental clinic.

FG8P4: Yes big difference, in primary we get called up for a check up, but now in high school we have to phone up ourselves. I forget sometimes.

Many participants also said that it was necessary to go to the clinic more often as younger students because they had not yet accrued the knowledge of good oral hygiene. For instance:

FG12P6: I think there is because when you were younger … you generally eat more like rubbish food like lollies … so you need more dental visits, but as you get older, you already know how to brush your teeth and take care of your teeth, so then your dental visits, you don't need to see them as often.

At the same time however, a number of participants reported that visiting the dental clinic was more enjoyable when they were younger because now, dental clinics were compared to being "like we're in prison" (FG13P2) or scenes from a "horror movie" (FG10P3). As younger children the participants also said they received gifts that made dental visits more enjoyable. For instance:

FG2P2: Did you guys get lollies after?

FG2P1: No 'cause lollies are bad (laughter).

FG2P2: It was a sticker I forgot … She gave me a lolly though.

Embarrassment and awkwardness

Other participants explained that they did not like visiting the dental clinic because it was scary, painful, awkward or embarrassing. The reasons for embarrassment focused on a lack of privacy, being treated by strangers and being asked to converse by an oral health professional when s/he had her/his fingers in the participants' mouths. General 'boringness' and long waiting times were also identified barriers to accessing dental care services. For instance:

FG5P1: 'Cause most of the time it is just plain … boring and awkward.

FG5P2: Sometimes because just the long wait.

FG4P3: 'Cause they're like strangers …

FG4P1: I hate that too … especially like they'll ask you so many questions and their hands like in your mouth.

FG13P2: Oh it feels kind of weird like your mouths like wide open and they're just looking down your mouth … You don't know where to look like because into their eyes, it's so awkward.

Some participants explained that the embarrassment and associated fear of judgement if a patient had poor oral hygiene was a reason why some Pasifika adolescents did not access oral health services. Moreover, visiting the dental clinic and not being able to purchase the oral health products that her dentist recommended was a source of embarrassment for one participant. The participants in focus group nine also stated that oral health care was often embarrassing because Pasifika girls are generally shy. The following comments typify these responses:

FG7P1: The shame of having bad teeth and not wanting to go to the dentist because of the embarrassment…and maybe they feel like they will be patronised by the dentist.

FG10P4: The dentist they tell you to buy stuff, but they don't know how expensive it is, and they expect me to…buy floss and this…and I would love to, but I come from a family that doesn't have that much money.

FG9P1: I think this is because they're too shy.

FG9P2: Yes quite a lot actually and this is because Pacific Island girls are less likely to visit the dentist because of what people might say about them.

Societal and cultural barriers to accessing dental services

The financially disadvantaged position of some Pasifika families was identified as a barrier to accessing dental services. For instance, FG5P4 said that Pasifika "people are, like, poor", while FG10P3 said that dental professionals "should understand like the money factor is something that Pacific Islanders find hard at the moment". Practical hurdles to accessing dental services were also associated with financial disadvantage and included: a lack of transport or "cars to come" (FG7P4), parent's inability to access childcare (also larger

[1] Focus group 14 participant one.

Pasifika families were considered to make childcare arrangements difficult), parental loss of income from taking leave from work (or inability to take leave), and adolescents having to help their parents at work. These comments are typified by the following:

FG11P4: Us Islander teenagers we end up working with our parents because they like struggle with their low like income jobs.

FG13P1: The parents they're like no we don't have time to go to the dentist for you, or you have to go to school, I've got work or stuff like that. They don't have the time to do anything for them. Not in a sad way, I don't know how to put it.

FG12P3: They come from big families the majority of Islanders so there's probably too much to take care of, like too many children.

The lesser emphasis placed on individual health in collectivist Pasifika cultures, where family, friends and the community are prioritised over an individual's health needs was another identified barrier to accessing dental services. For example "Oral health isn't as important in our culture 'cause our culture is based around family, friends, religion" (PR10[2]) and "[Pacific peoples] value other people/family/friends more than themselves and their own health" (PR11). Given this lower emphasis placed on individual oral heath, several participants maintained that some parents do not consider it necessary to supervise their children's access to oral health services. For instance:

FG11P3 : Europeans they get forced [to visit the clinic] because of their parents and us Islanders we don't get forced because … some parents I know they don't really understand what a dentist is for. Like they look at your teeth and if it's white 'oh you don't have to go to the dentist' … So … the Europeans I think their parents are strict so … their kids … don't have a choice, they have to go, whereas the Pacific Islanders … some parents are strict, but some are not so … Pacific teenagers can choose not to go.

A lack of oral health professionals in some of the participants' home cultures and a subsequent lack of understanding what the role of a dentist involves (also evident in the above comment) was a further barrier to accessing oral health services. Oral pain was also not considered to be important by some Pasifika parents because "they know it won't kill [their child]" (PR12) and therefore it was something that was mediated in the home. For instance:

FG12P4: Tongans we have medicines. Like somewhere in your mouth that shows anything, they tell you to drink the medicine and then it gets better, but the fact is that it just brings it down and then all of a sudden all that disease … comes back, but doubles how worse it was.

FG5P3: In my Pacific culture there is nothing called a dentist … lot[s] of Pacific Islanders have just migrated to a European country so they don't have enough information about what a dentist does.

Facilitators for accessing dental services

The clinic environment and health benefits

There were also facilitators for visiting the dental clinic, which were identified in the participants' responses. For instance, when they were asked what were the good things about visiting the dental clinic, almost half of the participants (23) made similar comments, in that, they had their teeth checked and/or cleaned, and therefore they knew that their teeth were healthy. For instance, "The good thing is that they get to check out your teeth, clean them, and see if they're clean, healthy or not" (FG8P2). A further two participants reported that a good thing about visiting the dental clinic was learning good oral hygiene techniques, while the participants in focus group six stated that getting 'gifts' was a good thing about visiting the clinic.

FG10P2: When you go to the dentist they give you good advice such as brush your teeth … twice … in the morning and at night time, especially at night time because, I think that is the most important time when you have to brush your teeth because … you have dinner at night time, so you need to clean the bacteria in your teeth.

FG6P7: I like going to the dentist … because they clean my teeth … and they like give me a free toothpaste … toothbrush and then like they give you a sticker. I feel really happy.

Some participants made reference to good things they associated with dental visits that were not related to oral health per se. For instance, two male participants explained that a good thing about visiting the clinic was that they got "to see the girls" (FG3P3) there. Others said that 'getting out of class' was a good thing about visiting the dental clinic. However, FG13P3 went on to explain that dental visits were good because they helped him to stay healthy and they were free.

Like I said I really like it. Part of the reason was to get me out of class, but the other reason was it was for my health … for my benefit and it was free as well so what have I got to lose.

Discussion

Results highlighted how Pasifika adolescents were less likely to access dental care services than their 'other' counterparts. Numerous barriers to, and facilitators for accessing dental services were also identified in the participants' responses. The barriers included: unstructured dental appointments, unwelcoming clinic environments, uninformative oral health professionals, and feelings of embarrassment or awkwardness. In addition societal and structural barriers were identified such as: not knowing what the role of a dental professional involved due to a lack of such professionals in some Pacific Islands, the belief that as adolescents do not need to access dental services

[2] Peer researcher 10.

as often as when they were younger, being too busy or alternatively apathetic to arrange their own appointments, a lack of transport or money for supplementary costs (such as childcare), and a lesser importance placed on individual health in collectivist Pasifika cultures. A smaller number of facilitators for accessing dental services were also identified in the participants' responses. These included: knowing that their teeth were healthy and/or clean, receiving oral health advice and gifts of free toothpaste or toothbrushes, wanting to make the most of the free oral health care before turning 18 years of age, getting out of class, as well as seeing members of the opposite sex in the clinic.

Self-reported oral health experiences

Data from the adult section of *The 2009 Our Oral Health Survey* showed that twice as many 'other' adolescents had visited a dental clinic in the past 12 months compared with Pasifika adolescents. Such a finding supports that of other national studies highlighting the disparity in oral health access experienced by Pasifika adolescents (Adolescent Health Research Group 2008; Areai et al, 2011; Børsting et al, 2015; Ministry of Health, 2010; Teevale et al, 2013).

When it came to the secondary analysis of data relating to the *Code of Rights* contained in the *2009 Our Oral Health Survey*, less Pasifika than 'other' adolescents reported that their dental professional always or often listened to them carefully when compared with 'other' adolescents (69% and 81.1% respectively). At the same time more Pasifika than 'other' participants stated that on their recent visits dental professional listened to them sometimes, occasionally, or never (19% and 8.8% respectively), which was also reflected in the qualitative findings. Under the *Standards Framework for Oral Health Practitioners* (Dental Council of New Zealand n.d.) all dental professionals are legally, professionally, and morally obligated to follow, is the ethical principle of communicating effectively, which contains the following two-points; you must communicate honestly, factually and without exaggeration, and you must listen to your patients and consider their preferences and concerns. Unfortunately, however, findings indicate that this does not always happen.

Societal Barriers

The financial inability to afford dental care emerged as a common theme. At the same time, however, most participants were aware that free basic oral health care was available to young people until they reached 18 years of age. Consequently, the perceived, rather than the actual cost of oral health care emerged as a barrier to accessing oral health care services (Fitzgerald et al, 2004). However, other practical barriers associated with financial disadvantage, such as a lack of transport and adolescents having to help their parents in their 'low paid' jobs also were barriers to accessing dental services. Due to the higher proportion of Pasifika peoples experiencing financial hardship, then the supplementary costs involved in accessing oral health care may be a more pronounced hurdle for Pasifika families (Areai et al, 2011; Ministry of Health n.d.).

Depictions of adolescence

Almost all of the focus group participants explained that they visited the clinic more often at primary school, when their appointments were structured and/or an oral health professional visited their schools, which supports the findings of France et al (2017). However, as adolescents they had to arrange their own appointments and sometimes they were too busy or apathetic to do so. In adolescence, young people are considered as moving away from dependence towards increasing autonomy (Hall-Scullin et al, 2015). This societal construction of adolescence may explain why there is a transition from structured appointments in primary schools, to young people having to organise their own appointments in adolescence.

In stating this, however, the participants from one Auckland school explained that a dental practitioner visited their secondary school. In Auckland, 71 low decile secondary schools are visited by mobile clinics which are the Auckland Regional Dental Service (personal correspondence, Corinna Wylie, Waitemata District Health Board, 22 January, 2018). It is likely that the school that these participants attended was one of these 71 schools, which was located in a region with one of the lowest rates of adolescent dental attendance in the country (Ministry of Health 2012). The mobile clinic may have visited the school in an attempt to bolster students' dental attendance.

Some participants maintained that they needed to visit the clinic more often as younger children because they had not yet developed the necessary knowledge to maintain good oral hygiene, which was a unique barrier identified in the study. However, because of other issues, such as wisdom teeth erupting in adolescence-early adulthood, which may cause problems for many (e.g. infection and impactions), then it is equally as important for adolescents to maintain regular dental attendance (American Dental Association 2006). Moreover, during adolescence, oral health behaviours are likely to become entrenched (Hall-Scullin et al, 2015), which is an issue of concern when there is a reduction in the rates of dental attendance during this life-stage (France et al, 2017; Mila-Schaaf et al, 2008; Teevale et al, 2013).

Shame and embarrassment

Some participants maintained that the fear of judgement if a patient had poor oral hygiene was a barrier to accessing dental services, which supports the findings of France et al (2017). The fear of judgement associated with poor oral health/hygiene often leads people to hesitate when interacting with others and/or covering their mouths in social situations (Suleymanove 2016). It is not surprising that adolescents with poor oral hygiene and other conditions (such as halitosis) may be reluctant to attend the clinic for fear of judgement. Shame and embarrassment have been shown to lead to social

isolation, while in this instance, they may also result in a lack of regular dental attendance (Yeh and Hwang 1999).

Other participants stated that they did not like going to the dental clinic because it was either awkward and/or embarrassing. One of these participants said it was awkward because she had to look into the dentist's eyes when being treated. In most Pasifika cultures the head is tapu (sacred) and it is considered inappropriate to touch people's heads (Medical Council of New Zealand 2010). A lack of eye contact is also a sign of respect and is a common when interacting with others in more authoritative positions (Jones 1989; Thomas 1994). Consequently, it is not surprising that one participant said that looking into the unfamiliar dental professional's eyes when she was being treated was awkward.

Pasifika cultural understandings and experiences

Pasifika cultures are collectivist cultures, where extended family, community and church are of prized importance (McGrath 2002; Wurtzburg 2004). This cultural understanding was reinforced by a large number of participants who explained that family, friends, and religion take precedence over individual oral health needs. Such a cultural framework also explains why some Pasifika parents do not oversee their child's dental attendance.

A small number of participants said that in certain Pacific Islands there are no dentists and consequently, some Pasifika peoples may not know what a dentist does, which supports the findings of France et al (2017). There is a shortage of dental professionals working in the Pacific Islands (Fainau 1996). The financial expense associated with immigrating was a further barrier to accessing dental services. Recent immigrant families can therefore be considered as at a high-risk of 'falling through the cracks' of the current oral health care system. Consequently, recent immigrants should be targeted for education on the free basic oral health care that is available to adolescents[3].

Facilitators for accessing dental services

Although numerous barriers to dental access were identified, there were also some facilitators for accessing dental services. Slightly less than half of the participants maintained that a positive aspect of visiting a dental clinic was the feeling of having clean teeth and the knowledge that their teeth were healthy, which supports the findings of France et al (2017). Patients with positive perceptions of dental services are more likely to utilise these dental services (Onyejaka et al, 2016). Consequently, those participants who reported that they enjoyed the feeling of clean teeth and the knowledge that their teeth were healthy may be more likely to return for subsequent visits.

Two participants also stated that a good thing about visiting the dental clinic was learning about oral hygiene techniques such as effective tooth brushing, which again supports the findings of France et al (2017). Such comments highlight dental practitioners are a vital source of information on oral hygiene (Hall-Scullin et al, 2015). Receiving gifts of a toothbrush, toothpaste, stickers, or in some instances lollies, was a facilitator for dental attendance. The practice of being given lollies can be considered as dental practitioners setting a poor example. Nevertheless, being given a toothbrush or toothpaste could in the short-term alleviate the situation for those participants whose families could not afford to purchase toothpaste.

Evaluating the research

This mixed method study has produced new insights into Pasifika adolescents' experiences of dental services, as well as barriers to, and facilitators for dental access. The desire for a more cross-culturally competent and youth-friendly research design facilitated the employment of Pasifika adolescents in the data collection, which may have meant that focus group participants may have felt freer to discuss sensitive issues, such as their family's financial circumstance than if an unfamiliar an adult researcher conducted the focus groups. The shared cultural backgrounds and proximity in the age of the peer researchers and their focus group participants is likely to have enhanced the research findings. However, on some occasions the peer researchers did not ask follow-up questions when further participant responses would have been warranted.

The majority of participants were also female high school students. Some Pasifika ethnicities were not represented or were under represented amongst the participants. Future research on Pasifika adolescents' understandings and experiences of oral health should aim to include greater diversity of Pasifika ethnicities, a more varied range of occupations as well as more male participants.

Moreover, the data collected for the *2009 Our Oral Health Survey* can be considered dated. Nevertheless, given the lack of published studies reporting detailed data on Pasifika adolescents' access to dental care, then the secondary analysis of this 'somewhat dated' data was necessary.

Conclusion

In the study, a number of societal and clinical barriers to, and facilitators for accessing dental services have been identified. For example, Pasifika adolescents were found to be less likely to access dental services than their 'other' counterparts and participants' perceptions of oral health were impacted by cultural understandings, where families, friends and Church are prioritised over individual health needs. Dental professionals and the Ministry of Health can use these findings as a conversation starter for designing interventions that are aimed at addressing the disparities in the rates of dental access and oral health outcomes experienced by Pasifika adolescents.

[3] Although parents must have a working visa for two or more years, a resident visa, be a permanent resident or a New Zealand citizen to qualify (personal correspondence, Francis Fleming, Ministry of Health, 16 March, 2017).

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