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Breaking down the barriers: a qualitative study to understand child oral health in refugee and migrant communities in Australia

Elisha Riggs\textsuperscript{a,b}, Lisa Gibbs\textsuperscript{b}, Nicky Kilpatrick\textsuperscript{c}, Mark Gussy\textsuperscript{d}, Caroline van Gemert\textsuperscript{e}, Saher Ali\textsuperscript{f} & Elizabeth Waters\textsuperscript{b}

\textsuperscript{a} Healthy Mothers Healthy Families Research Group, Murdoch Childrens Research Institute, Parkville, Australia
\textsuperscript{b} Jack Brockhoff Child Health and Wellbeing Program, The University of Melbourne, Melbourne, Australia
\textsuperscript{c} Vascular Biology, Murdoch Childrens Research Institute, Parkville, Australia
\textsuperscript{d} La Trobe Rural Health School, La Trobe University, Bendigo, Australia
\textsuperscript{e} Centre for Population Health, Burnet Institute, Melbourne, Australia
\textsuperscript{f} School of Medical Sciences, Royal Melbourne Institute of Technology, Melbourne, Australia

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Breaking down the barriers: a qualitative study to understand child oral health in refugee and migrant communities in Australia

Elisha Riggsa,b*, Lisa Gibbsb, Nicky Kilpatrickc, Mark Gussyd, Caroline van Gemerte, Saher Ali and Elizabeth Watersb

aHealthy Mothers Healthy Families Research Group, Murdoch Childrens Research Institute, Parkville, Australia; bJack Brockhoff Child Health and Wellbeing Program, The University of Melbourne, Melbourne, Australia; cVascular Biology, Murdoch Childrens Research Institute, Parkville, Australia; dLa Trobe Rural Health School, La Trobe University, Bendigo, Australia; eCentre for Population Health, Burnet Institute, Melbourne, Australia; fSchool of Medical Sciences, Royal Melbourne Institute of Technology, Melbourne, Australia

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Objective. Australia is an increasingly multicultural nation. Never before has the dental workforce been exposed to such language, cultural, religious and ethnic diversity. There is evidence that refugee and migrant children experience significantly poorer oral health than the nonmigrant population. However, little is known about the oral health knowledge, practices and beliefs of parents with young children from refugee and migrant backgrounds. The aim of this study was to identify the sociocultural influences on child oral health in these communities.

Design. Participatory and qualitative research methods were utilised. Partnerships were established with community agencies representing migrants from Iraq, Lebanon and Pakistan. Focus group discussions and semi-structured interviews were conducted with community members. Qualitative data were analysed thematically, combining focus group and interview data.

Results. Over 100 women participated in focus groups (n = 11) and semi-structured interviews (n = 7). Key findings included the knowledge, beliefs and practices concerning: caries risk factors, oral health practices and oral health literacy. Despite mothers’ knowledge of the major causes of poor oral health – dietary changes, confusion about child oral hygiene practices and limited oral health literacy all influenced child oral health outcomes.

Conclusion. This culturally competent qualitative study explores the sociocultural factors influencing child oral health in refugee and migrant communities. Understanding and acknowledging these factors are a prerequisite to determining where and how to intervene to improve oral health. Furthermore, it has implications for both dental and non-dental health professionals working to reduce health inequalities within such communities.

Keywords: refugee; migrant; child oral health; qualitative research; health beliefs; cultural competence

Introduction

Early Childhood Caries (ECC) is the most common preventable disease of childhood (Mouradian 2001). Short-term sequelae of untreated ECC are pain, infection and
abscesses which can often lead to hospital admission and general anaesthetic (Gussy, Waters, Walsh et al. 2006). Despite improvements over the past several decades, significant oral health inequalities remain. The socio-economic gradient that exists for general health is evident in oral health, with caries rates higher among the socially disadvantaged (Kilpatrick et al. 2012). This includes those living in rural areas, indigenous and ethnically diverse families and those living in poverty.

Factors associated with the development and distribution of dental caries are complex (Gussy, Waters, Walsh et al. 2006), and include an interplay between adverse life conditions, family demographics, genetic inheritance, beliefs, practices and dietary habits (Harris et al. 2004). Global migration and resulting environmental changes in both lifestyle and dietary habits may also contribute to dental caries; however, these are poorly understood in relation to child oral health in refugee and other migrant communities.

Globally, the limited scope of data reveals that child migrant oral health is poor (Riggs et al. 2014). In a Swedish study, caries prevalence of migrant preschool children at baseline was 85%, with adefs\(^1\) of 4.4 (Wennhall et al. 2002). A Canadian intervention study reported that Vietnamese children aged 18–60 months demonstrated extensive caries with adefs\(^{2}\) of 9.5 at baseline (Harrison and Wong 2003). There is limited data reported on traditional oral health practices and beliefs in the oral health literature. A British study of Pakistani mothers reported the use of sakra (a traditional chewing stick) for themselves and their children (Godson and Williams 1996). A US study with Chinese immigrants (Wong, Perez-Spiess, and Julliard 2005) revealed cultural beliefs that did not support the preservation of primary teeth. A recent US study involving adult Somali refugees (Geltman et al. 2013) found that those with lower health literacy had an increased risk of DMFT\(^2\) at 5 years after arrival. In addition to Western oral health practices, the authors recommended retention of traditional practices such as the miswak.\(^3\) It remains unclear which components of migration are predictors of caries experience, but potential indicators include the rate and extent of acculturation, length of residency, acquisition of host-language and level of health literacy (Geltman et al. 2013).

Australian data show that almost half (48.7%) of 5–6-year-olds have a history of dental decay (Armfield et al. 2003) and for 1–4-year-olds it is the fifth most common reason for hospitalisation (Tennant et al. 2000). Australian data for refugee children and adults suggest that they have poorer oral health than the wider population (McAllan 1988; Spencer et al. 1989; Davidson et al. 2006). It is also reported that health outcomes for refugee background migrants are poorer than other groups of migrants (i.e. economic migrants; DIMIA 2003). Factors including birthplace, English fluency, process of migration, stage of life and whether the individual is part of an established or emerging community may all influence health, and therefore oral health status. Many are further disadvantaged by poverty, unemployment, poor housing, social exclusion and discrimination.

**Theoretical framework**

A socio-ecological framework provides a holistic perspective of health, highlighting the range of complex influences on health outcomes. Such a framework acknowledges the sociocultural, economic and behavioural factors influencing health (Bronfenbrenner 1986). A model by Fisher-Owens builds upon what is known about these determinants, across the lifecourse, and presents this within a framework for ECC (Figure 1; Fisher-Owens...
et al. 2007). Fisher-Owens identifies that caries are not caused by a single factor, but rather an array of influences determining oral disease over a person’s lifetime.

‘Culture’ is identified within this model as a factor at both the family and community levels. However, the mechanism of influence for culture in the context of migration remains unclear. It is likely to depend on the migration experience (i.e. traumatic refugee experiences, access to food, water, sanitation, education), as well as the extent of acculturation that occurs post-migration (Gao and McGrath 2011). Acculturation occurs when groups of individuals of different cultures come into continuous contact, with subsequent changes in the original cultural patterns of either or all groups (Berry 1992). While many models for acculturation exist, the four-fold dimensional acculturation model [including assimilation, integration (biculturalism), marginalisation and traditional acculturation] informs this study (Rudmin 2003). Acculturation is a dynamic process and how to best measure it is contested; nonetheless, there is evidence that oral health is directly associated with the degree of acculturation. Studies from Australia and the USA using different acculturation measurement tools have demonstrated associations between acculturation and dental caries, knowledge of preventative measures and dental visits (Marino et al. 2001) and oral health practices, earlier initial dental visits and breastfeeding rates (Farokhi et al. 2011).

Child oral health in refugee and migrant communities is an important public health issue. Given the cultural diversity of populations in developed countries such as Australia, the USA and the UK, understanding the environmental and lifestyle changes of migrant families is important to inform strategies to reduce disparities. The aim of this community-based participatory research (CBPR) study, entitled ‘Teeth Tales’, was to address this research gap by exploring the sociocultural influences on child oral health knowledge, beliefs and practices in three migrant communities in Melbourne, Australia.
Methods

Ethics
This study was approved by Deakin University Human Research Ethics Committee EC 331-2005 and University of Melbourne Human Research Ethics Committee 0824606.

Setting
The Teeth Tales study was a partnership between the University of Melbourne and Merri Community Health Services (MCHSs), and conducted in the Moreland and Hume Local Government Areas of metropolitan Melbourne. The areas are key settlement areas for new migrants comprising approximately 100 cultural groups, and are also characterised by high levels of social disadvantage.

Data and anecdotal information from several sources were collected to determine which communities to include in the research. These data included a literature review, local dental service data, local settlement data, access points to community members, use of traditional oral health practices, age of children and MCHS priority group status. Iraqi, Lebanese and Pakistani communities were selected. For funding and logistical reasons only three communities were selected.

The Iraqi and Lebanese communities have mostly arrived as part of Australia’s ‘Humanitarian’ stream of the Migration Program and the Pakistanis have mostly entered under the ‘Skill’ or ‘Family’ stream of the Migration Program. Generally, these differences can be summarised as whether the individuals have been forced to flee from their country for safety reasons in times of warfare, persecution and political instability or have chosen to leave their country for employment and economic opportunities. Importantly, there are multiple types of visas, each with different and complex entitlements which impact on eligibility for accessing health care and other services.

Research approach
CBPR methods are recognised as an appropriate way of engaging harder-to-reach populations, including non-English-speaking migrant women (Israel et al. 1998). A culturally competent approach expands CBPR as it accounts for the additional layers of cultural complexities, sensitivities and differences in beliefs and practices. A recent systematic review highlighted the gap in culturally competent oral health research studies (Riggs et al. 2014) and therefore a CBPR framework developed by Gibbs and colleagues was adopted for this study, involving the three communities in decision-making and research processes at each stage of the study (Gibbs et al. 2007). The Gibbs framework provides guidance on how cultural competence might be achieved, therefore, this study was exploratory in both topic and method.

Two local cultural agencies were approached to engage with the Iraqi and Lebanese community; partnership agreements were established. Women were predominantly the primary carers for young children in these communities and were the focus of recruitment; mothers, grandmothers and carers of children aged 0–12 were invited to participate. The cultural agencies hosted women’s groups and identified these settings as a source of participants and focus group discussions were agreed to be an appropriate method. The project workers from the two agencies inquired and obtained community
groups’ interest in participating and scheduled the focus groups. In the absence of an established Pakistani agency or local community group, a proactive Pakistani mother identified at a local playgroup was employed as a community researcher. She used a snowball sampling method to recruit participants.

Data collection, recording and transcription

Focus groups were held in the women’s usual social group venue, or for the Pakistani groups in a community meeting room. All were provided with plain language statements and consent forms in English and Urdu or Arabic. An interpreter/project worker read out the forms in the preferred language before seeking informed consent. Although verbal consent was offered as an option, all participants signed the consent form. Participants received $10AUD (approx. $6.5GBP) as a reimbursement for their time. The discussions were usually 1.5 hours long, but including introductions and a shared traditional lunch took about 3 hours.

A semi-structured interview schedule was developed and refined with input from the cultural agencies. The schedule was used for all focus groups to explore knowledge, attitudes and practices in relation to child oral health and service access. Questions included: ‘What is traditionally used to look after your teeth in your culture/country of origin?’ and ‘What do you think causes tooth decay in children?’ All discussions were audio-recorded and transcribed verbatim in English. All focus groups were conducted in the participants’ preferred language (English, Arabic, Urdu or Assyrian). Demographic data concerning participant’s age, education and income were not collected as per advice from the cultural agencies. When interpretation was required, the project workers completed this or professional interpreters were employed. All audio recordings included the English interpretations of the discussions – the subsequent transcriptions only included the English-language components.

Data analysis

The project workers and community researcher were invited to participate in data analysis and interpretation of the data at all stages of the research process. Each group chose to complete tasks differently as well as their degree of involvement. The Lebanese and Pakistani workers wanted to be involved in data analysis and were provided with training and support from the research team and paid for their time. This provided avenues for cultural difference, sensitivities and nuances to be incorporated into the interpretation of findings. The interview transcripts were analysed thematically. This involved immersion in the data, coding the transcripts, categorising the codes and the generation of themes (Green et al. 2007). One researcher (E.R.) conducted the analysis with the project worker and community researcher also involved in coding, categorising and interpreting. The software package (NVivo 7, QSR International) was used to store and manage the data.

A community forum was held with the Pakistani community to share, discuss and confirm the findings. The Iraqi and Lebanese cultural workers shared the findings verbally and provided a written and translated summary of findings. Findings were confirmed by community members.
Results

Eleven focus groups were conducted with approximately 115 women. Three focus groups were conducted with 20 Pakistani (mostly Muslim) women, three with 22 Assyrian Chaldean women (indigenous group from northern Iraq, mostly Christian), one with 12 women from Iraq (mostly Muslim), two focus groups were with 33 mixed Lebanese and Iraqi women and two were conducted with 28 Lebanese women (all mostly Muslim). Seven interviews were also conducted with four Pakistani, two Iraqi and one Lebanese women. These women were focus group participants and either requested to speak to the researcher individually or the researcher wanted to further explore emerging themes or clarify alternative views.

Experience of dental caries

All participants identified child oral health as a concern in their communities. Dental caries in children was a familiar health issue with the majority having either experienced caries themselves, with their children, or other people they knew. Tooth decay was described in various ways including black spots/teeth, rotten teeth, toothache, holes in teeth and an infection. Many reported that child tooth decay was not an issue in their home countries and could not understand why their children now experienced it:

Our forefathers they didn’t use toothbrush … they had better teeth than we do now. (Pakistani Focus Group [FG])

Dental pain in children caused considerable distress for parents. Concerns were raised by participants about the implications for young children who had all their teeth extracted, for their eating, nutrition and speech development. An Iraqi grandmother shared her family’s experience of dental extractions in a very young child:

His mother is very worried about it and when I asked her, she said when she took him to the dentist, the dentist said it would probably take about six to seven years before he can get teeth [after having all primary teeth removed]. (Iraqi Int)

Another participant believed that parents also ‘suffer’ as a result of having a child in pain:

The parents are suffering more than the kids because when the mother sees her kids have problem with their teeth, she suffers. (Iraqi Int)

Caries risk and protective factors

Several risk and protective factors for oral health were identified.

Diet

All participants identified diet including sugar and soft drink consumption as a major cause of dental caries. Dietary changes since migrating to Australia were discussed at great length. The accessibility to premade and packaged food, especially confectionary, was a significant difference between home countries and Australia:
Now it’s a problem because of this … the chocolate. When we were younger it was a once in a while thing, lollies was a luxury. It wasn’t common. It was very expensive. (Pakistan FG)

Both Iraqi and Pakistani mothers reported purchasing an infant formula/cereal called Celerac and Nido from local ethnic grocery shops:

I thought it might be good and I gave him. She [the nurse] said it is full of sugar and you can’t give it to the kids. (Pakistani Int)

Child consumption of fruit juice was commonly a daily occurrence. Although soft drinks were identified as another cause of poor oral health, many suggested that parents did not understand the damage soft drinks cause because of limited community awareness that soft drink contains sugar. Dates, a dried fruit, were particularly important for newborn infants and traditionally placed in their mouths. An Iraqi participant explained that sugar is given to comfort newborns and was surprised to learn it is harmful:

What we usually do, Iraqi people, we dissolve some sugar in the water and then we feed the baby. When she was doing that, the nurse came and said ‘what are you doing?’ We usually do this; we feed the baby sugar and water. She said ‘no, don’t do this, this is not good for the baby, here we call it white poison’. (Interpreter Iraqi FG)

As well as using sugar to comfort children, mothers used it as a source of nourishment when concerned about their growth and development. An Iraqi participant stated that although her children experienced tooth decay, concerns for her daughter being underweight compelled her to continue feeding her daughter sweets:

All of my kids are suffering from the same problem, tooth decay … maybe it is due to the sweets … my kids are refusing to take any food but sweets, she [my daughter] is so thin, her health is not alright. (Iraq FG)

The cost of food was a common barrier to accessing fresh food. Pakistani participants felt that meat was expensive and consequently consumed less than when in Pakistan. Weekly shopping at supermarkets was a new way of purchasing food; previously women had walked daily to markets to purchase food. Participants reported their local shops in Melbourne were ‘not good’ for fresh and affordable food. Preference was to shop at markets but there were limited public transport options for getting to local markets and participants rarely had their own driver’s licence or access to private transport. Furthermore, a reluctance to communicate in English was identified as a major barrier to shop confidently.

Water and fluoride

All participants agreed on the importance of drinking water. Participants reported that in their home countries, water was often contaminated and unsafe to drink with consumption leading to ill health. A few reported that water supplies in refugee camps had been poisoned or were fearful that they would be. Several Pakistani women filtered their tap water as they thought it tasted ‘dirty’ or added cordial to improve the taste. In contrast, several Iraqi participants preferred Australian water:
It was sweeter than the water we used to have in Iraq. I loved it the first day I came here … to our surprise it was beautiful water and we really enjoyed it. (Iraqi Int)

Fluoride was a new concept for almost all participants. Only a few Pakistani women and one Lebanese woman (educated in Australia) knew what it was. These women reported learning about it at a recent ‘community peer education’ programme they participated in, at school, listening to radio programmes and also from a hairdresser. There was limited knowledge about the role of community water fluoridation in preventing dental caries. However, some Lebanese participants described a tablet, thought to be similar to a fluoride tablet being added to the family drinking water in Lebanon.

**Child oral hygiene practices**

Current child oral health practices varied across all cultural groups. Participants described their own childhood practices and compared these to the current practices with their children or grandchildren. Rarely were preschool children practising any oral hygiene, particularly in the Lebanese and Iraqi groups. Most parents began oral health care with their children when they started primary school. The absence of oral health practices for themselves as young children influenced their current knowledge and behaviours. All participants spoke about the lack of attention given to oral hygiene in their home countries because people had good oral health and therefore had little reason to be concerned. Before migrating to Australia many had never used a toothbrush or toothpaste:

> When I left my country to come to Australia, it wasn’t until I got here; never before had I brushed my teeth. We didn’t have bad teeth. (Lebanese FG)

There was much confusion in all groups about when to introduce toothbrushing and toothpaste to children. It appears there are two main reasons for this. Firstly, toothbrushing in young children was largely a new practice for parents. Secondly, the advice they were given, by health care professionals, was incomplete, or conflicted with their own beliefs. Within one Lebanese focus group there was a range of responses from starting to brush at 2–3 years of age, when the child has their full set of teeth, when the child was capable of brushing themselves or when they began to eat sweets. A pertinent comment came from an Iraqi participant:

> She thinks they are too young for anything to be done; she thinks it is an invasion. She starts when they are about four years, shows them how to brush. Before then nothing. (Interpreter Iraqi FG)

A Pakistani participant reported learning from a maternal and child health nurse (MCHN) that she should clean her child’s mouth before the teeth erupted. Many could not understand why this was, considering the child had no teeth to clean, they found it a humorous concept. This is an example of incomplete information from a health professional, i.e. instructions to clean but with no rationale to support it. Another participant described how a MCHN told her to clean her child’s teeth from the age of 2 years; however, she did not follow this advice:
The nurse told her that toddlers should start cleaning their teeth when they are two years old, she doesn’t believe in that and she hasn’t applied it to her children … the child is still too young to look after his or herself and she believes to wait until the child is five years old, when the child can be independent to clean their teeth. (Interpreter Lebanese FG)

There was great enthusiasm when sharing stories about traditional oral health practices. Across all cultural groups, except for the Assyrian Chaldean participants (who are Christian, not Muslim like most of the other participants), the use of miswak was discussed. A combination of miswak and toothbrushing was commonly used by the women themselves, for some women, toothpaste was used for a ‘fresh’ feeling. It was believed that the antibacterial properties of miswak help treat oral health problems. A Lebanese mother explained that everyone would benefit from using miswak:

It’s not just for religious, it’s proven medical … it’s proven to clean the teeth, it is not just for Muslims, it is for everyone in general … so as you are brushing it, it is working on your teeth … and the health of the gums as well. (Lebanese Int)

Many women considered introducing miswak to their children to prevent and treat caries as they believed miswak had protected their families’ oral health prior to migration. A Lebanese mother was encouraging her son to use miswak to treat existing caries; however, this was proving difficult due to the ‘fibrous’ nature of the dried stick causing him discomfort. Ideally, for young children to begin using miswak it should be fresh rather than dried as they are softer. Dried miswak can be purchased in Australia from ethnic grocery stores. Fresh miswak can be purchased at markets in home countries but is not available in Australia as the tree is not grown locally. Due to this unavailability, no form of oral hygiene was practised in many young children. One participant reported her experience in the airport where her miswak that she was bringing into Australia was quarantined. When it was returned to her, she stored it in her freezer and continued to use it.

Several other traditional practices were reported, including derum (bark from a walnut tree), sheb (skin from the outside of a walnut), neem and dentonic powder. A participant explained the different ways of using derum in Iraq:

The fruit that they take out of the walnut tree, when it’s green some of them take the skin out and dry it but some of them use the green fruit. Especially people living in the northern part of Iraq, but from the middle and the south, we are from the south, we dry it. (Iraqi Int)

It gets rid of all the blood in the teeth and also tightens the gum … I don’t go to the doctor, this is my medication … when I went to Saudi Arabia, to Mecca last year, this is where I brought it from. (Iraqi Int)

Other items for oral health care included salt, bi-carbonate of soda, sage, coal and carnation flowers. Garlic, cloves and aspirin were used to treat dental pain. These items were used by all communities. A Lebanese participant used a mixture of sage and ash prescribed by an Arabic doctor to ‘massage’ into her teeth and gums to heal infections. An Iraqi participant described apple cider as also very good for teeth. Some reported using matchsticks, cotton thread or string to floss their teeth in their home countries.

Iraqi and Lebanese women discussed that living in poverty was perhaps a reason for not accessing toothbrushes and toothpastes in the past. The cost of oral hygiene products was not a current issue in Australia as explained by an Iraqi participant:
From where I come from we couldn’t afford to pay for toothpaste and there was no water. Only the educated people or people in good positions used to [be able to afford toothbrushes and toothpastes] because it wasn’t common in the market. But in our children’s time and grandchildren, there wasn’t any problem. (Iraqi Int)

**Oral health literacy and locus of control**

Lack of access to appropriate and accurate information was identified by participants as a barrier to oral health care. Although mothers could recall the main causes of poor oral health, there remained uncertainty, confusion and knowledge gaps regarding many oral health issues. For example:

I also heard that young children [using] bottles cause tooth decay. Do you know what the reason is? (Iraqi FG)

The source of dental information varied among participants but was usually obtained from family and friends. The Pakistani women obtained information from their husbands, women at playgroups and by phoning their mothers in Pakistan. Most evident in the Iraqi and Lebanese discussions was the lack of contact with health care providers whilst many Pakistani women reported asking their MCHN. No one reported asking a dental professional in Australia for oral health information. Participants expressed interest to learn more about recommendations for good oral health for them, their children and family. They were very conscious of their own knowledge gaps and understanding:

Can you tell us about the dental things we need to know now? Please give correct information only. A lot of things we don’t know. (Lebanese FG)

Although diet was identified as causing oral health problems, participants felt they had little control over what their children were eating. Particularly as children got older, mothers felt they were not able to monitor their children’s diet, and they felt parents were blamed when their child developed caries. There was a sense of helplessness, that children in Australia do not listen to and respect their parents, and this concerned them. Participants reported that raising children in Australia is very different to their home countries and this worried them greatly:

Children used to have a healthy diet and children listened to their parents. Children don’t listen to their parents anymore. (Assyrian Chaldean FG)

**Other perceived influences on poor oral health**

Several other causes of poor oral health were identified by participants. Breastfeeding was described as extremely important for the health of a child. Across all cultural groups, this was preferred over using a bottle and formula; though it was acknowledged that some women cannot always breastfeed. Many believed that using bottles and dummies caused poor oral health. However, there was much confusion about how these items could be harmful. Bottles and dummies were not a common practice prior to arriving in Australia. Participants reported that they were encouraged by health professionals in Australia to use these but did not understand why.
I do believe the dummy causes tooth decay (Iraqi FG)

They drink milk a lot when they sleep at night. They drink at night so they [the teeth] go rotten. I have heard that about the bottle. Some kids don’t stop the bottle. Some kids take it to school with them. (Lebanese FG)

Overall, participants had a good understanding of the dietary causes of poor oral health in children. However, they faced difficulties controlling their child’s diet and there was a lot of confusion about the other causes of dental decay as well as when to begin cleaning children’s teeth.

Discussion

Despite evidence of oral health inequalities in migrant children, there is little understanding of the reasons for these disparities. This qualitative study has attempted to address this gap by documenting the oral health knowledge, beliefs and practices that could influence oral health outcomes, in three migrant communities living in Melbourne, Australia. Although all participants identified child oral health as a problem, many reported that this was a new phenomenon, especially the severity of it, giving rise to concern only since their arrival in Australia. Poor oral health in these communities may therefore be associated with a genuine lack of awareness of the potential for dental disease in very young children as opposed to the perceived lack of importance of oral health in the primary dentition reported in other communities (Gussy et al. 2008).

The influence of diet on oral health and in particular the change in diet associated with migration was an important theme. The sociocultural influences on dietary habits are such that although participants were aware of the types of foods and drinks that cause decay, their own strongly held beliefs about child growth and development appear to be more powerful than arguments surrounding causes of caries. It has been suggested that dietary factors are amongst the least amenable to change particularly with respect to infants and toddlers (Gussy, Waters, and Kilpatrick 2006). Certainly, failure to address and resolve these underlying concerns is likely to limit the possibility of changing dietary behaviours. Furthermore, difficulties in access and affordability of fresh and non-processed foods have led to negative changes in dietary habits which may be more pronounced in economically disadvantaged refugee communities. Similarly, associations between drinking tap water and ill health for some participants raise questions about the effectiveness of both fluoridation of reticulated public water supplies for this population and provision of dental health information.

The liveliest discussions arose when participants discussed their oral hygiene beliefs and practices. *Teeth Tales* identified significant confusion about the appropriate age to start toothbrushing. For many, toothbrushing was a new practice which some had not experienced themselves until arrival in Australia and rarely with young children. Given the evidence for the effectiveness of toothbrushing with fluoridated toothpaste in the prevention of dental caries (Marinho et al. 2003), it is clear that providing culturally competent explanations to promote these practices for children at an early age is needed that acknowledge and include the current use of traditional practices, where appropriate. Whilst there is limited evidence of miswak being effective in reducing caries experience, there are several studies suggesting that extracts from *Salvadora persica* inhibit the functions of cariogenic bacteria *Streptococcus mutans* and *Streptococcus sobrinus*...
The concept of oral health literacy is relatively new, evolving from the field of health literacy. Oral health literacy represents the cognitive and social skills which determine the capacity of individuals to access, understand and use information in ways which promote and maintain good oral health (WHO 1998). Higher levels of health literacy can be facilitated by professionals such as oral health practitioners by providing understandable and relevant information (Jackson 2006). Given the numerous questions asked by participants seeking correct information during data collection, it was evident that there were low levels of oral health literacy. Mainstream oral health messages, such as toothbrushing with fluoridated toothpastes, healthy diets and preventative dental assessments do not appear to reach these communities. Basic oral health education needs to be consistent, and delivered using culturally appropriate methods and languages to eliminate confusion.

The links between oral health literacy and self-efficacy are apparent. Self-efficacy is the ‘degree to which an individual feels that they can successfully behave in a certain way and is considered an important prerequisite for behaviour change’ (Bandura 1977). Teeth Tales participants expressed a lack of ‘self-efficacy’ for knowing when to start brushing children’s teeth. Rarely did women report they did not know how to brush their child’s teeth because they believed once children were old enough they were capable of doing it themselves. Observational and participatory learning should lead to the development of the knowledge and skills necessary for behaviour change. For example, demonstrating to parents how to brush their child’s teeth (from infancy to preschool and then school age), supervising and repeating the practice, should lead to increased confidence in carrying out the behaviour at home. Confidence or self-efficacy in the ability to carry out health behaviours can influence whether or not the health behaviour is maintained (Syrjala, Kneckt, and Knuuttila 1999). Several local and international studies have identified similar issues highlighting the connections between oral health literacy and self-efficacy (Adair et al. 2004; de Silva-Sanigorski et al. 2012). The results from Teeth Tales suggest that intervening at the family and community level (not only the individual level) is important for providing parents with knowledge and skills to promote oral health behaviours. Most women obtained their health-related information from family and friends and other social group members. Therefore, this would be an ideal setting for information sharing and practising new behaviours.

The Fisher-Owens model (Figure 1) incorporates culture as a determinant of oral health. At the family level, the focus of culture is on language, diet, health care use and family interactions. At the community level, it encompasses cultural practices, values, religious practices, health beliefs, social norms, language, diet, family structure and social function, preventive oral health service use and attention to dental hygiene. Although studies have reported that race and ethnicity impact on oral health outcomes, often the differences between racial groups cannot be explained (Prendergast, Beal, and Williams 1997). It is suggested that socio-economic conditions are a more likely explanation of causal risk factors for poor oral health than ethnicity per se. In addition, a multi-country study identified that while an appreciation of the impact of cultural and ethnic diversity is important, parental locus of control was possibly more influential in child oral health (Adair et al. 2004). However, whilst these factors are undoubtedly important, the migration experience as a possible causal factor for child oral health outcomes should
also be noted. This includes a person’s premigration conditions, the migration journey and ongoing settlement experiences. The premigration experience was vastly different for the refugee background (Iraqi and Lebanese) participants compared to the economic migrant background (Pakistani). The refugee experiences of the Iraqi and Lebanese women encompassed limited previous opportunities for education and learning English, access to services and information, poverty and access to safe water. This in turn impacted on opportunities to seek, receive and accept oral health information. In comparison, most Pakistani participants had a better grasp of English giving them confidence to express their concerns about child oral health and access oral health information. The Teeth Tales findings suggest that in addition to culture, ethnicity and race, the migration experience may also be a strong influence on oral health. However, social class remains a potential critical factor within the migration experience. Many Pakistani participants had higher levels of education than the Lebanese and Iraqi communities. Whether the community was relatively newly arrived (Iraqi and Pakistani) or more established (Lebanese) did not appear to influence levels of knowledge or access to information and services. These findings extend the Fisher-Owens view of culture as an influencing factor on oral health outcomes for these populations. Oral health practitioners need to be aware of this and should ask clients about their migration history in order to respond adequately to the individual needs of clients and families, appropriately and sensitively.

Several acculturation scales exist to measure the degree of acculturation (Farokhi et al. 2011; Geltman et al. 2013). One oral health study assessed acculturation by asking about preferences for the original culture or host culture as measured by exposure to the media, friends and other social contacts (Quandt et al. 2007). An individual’s social connections have been identified as key to ‘successful’ integration (Ager and Strang 2008). It has been noted that not measuring the psychological dimension of acculturation may represent a key limitation when relating acculturation to oral health (Marino et al. 2001). An understanding of migrants’ use and knowledge of the host country’s language is important, but their motivation, sociocultural health beliefs and habits may be even more important for understanding the impact of migration on health and uptake of preventative practices and services. For example, in Teeth Tales women were confused about when to start cleaning their children’s teeth; however, they chose not to follow the advice provided by health professionals about brushing children’s teeth from an early age.

The findings of this study have some limitations. Sampling for the Iraqi and Lebanese communities did not extend beyond the social groups hosted by the cultural partner agencies; however, attendance on the days of the focus groups was higher than usual, indicating that ‘word of mouth’ had encouraged broader participation. Families less socially connected or based in other geographical areas may have different experiences and perspectives. Additionally, we do not have information on those who did not participate from the Pakistani community. However, at the Pakistani focus groups it was the first time many participants had met, indicating that the snowball sampling technique employed was successful in extending beyond single-chain social networks. This study explored the health problem from the perspective of women as they tend to be the primary carers of young children. The perspective of men/fathers requires exploration not least because in many communities males often make the financial decisions such as purchasing food and providing transport. Finally, caution is needed when applying the findings to communities with other cultural backgrounds and countries of origin.
Conclusion
To our knowledge, this qualitative study is the first in Australia to explore the sociocultural factors that influence child oral health outcomes in migrant communities. The study revealed several influences including dietary changes and use of traditional oral health care practices. Understanding and acknowledging these factors are a prerequisite for determining where and how best to intervene to prevent dental caries. This study adopted a culturally competent approach by working in partnership with cultural agencies representing families from Iraq, Pakistan and Lebanon.

In general, mothers were aware that there was information available that they were not being exposed to and they expressed a wish to access this information. Often people with refugee backgrounds are not literate in their own language so translated written information is not always useful. Dental and other health professions need to provide consistent and relevant information that is mindful of the cultural and migrant context. Migration experience together with other factors, including English proficiency, health literacy, acculturation, health beliefs, previous education and socio-economic status, impact on an individual’s ability to access health information and services and are likely to perpetuate poor health outcomes. We have demonstrated in this study that the influence of the migration experience extends Fisher-Owens theory of multilevel cultural influences on oral health. This study has broader implications for all health professionals working with such communities to reduce health inequalities.

Key messages
(1) To effectively address oral health inequalities in migrant populations, an understanding of their sociocultural beliefs and practices is required.
(2) Dental services and oral health programmes must be mindful of the migration background of clients in addition to cultural influences.
(3) Migrant parents need to be provided with relevant and useful oral health information that acknowledges their own cultural health beliefs.

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Notes
1. The number of decayed, extracted, filled surfaces on the teeth, lower case indicating primary teeth.
2. Decayed, missing, filled teeth. Note: capital letters indicate adult teeth.
3. Miswak is a stick from a particular tree possessing antibacterial properties and is used to clean teeth in some Asian, African and Middle-Eastern countries. It is associated with the cleansing ritual that Muslims complete five times a day before prayer (Riggs et al. 2012).

References


