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Older peoples' perceptions of oral health: 'it's just not that simple'

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Abstract: *Objectives:* Little is known about older persons' perceptions of oral health and oral health care. The purpose of this study was to explore the viewpoint of older adults' regarding their oral health care practices. *Methods:* A qualitative interpretive methodology was employed comprising three analytic levels: coding of data into concepts, analysis of concepts into themes, followed by an in-depth analysis of relationships within concepts and between themes. In-depth individual interviews were conducted with 19 participants aged 65 to 87 years. *Results:* Older people's decision to access oral health care involves complex and personally meaningful strategies. A dental visit surfaces hopes and fears based on past and present experiences. Mouth and teeth are not merely objects of dental care; they represent a person's social and relational self. Age-related changes challenge the relational self as represented in societal ideal images of youth and perfection (the perfect smile). This study highlights older peoples' resilience and determination when faced with the dilemmas in accessing oral health care – it costs, personally as well as financially. Contrary to the assumption that older peoples' oral health status is related to neglect, rather for many, it is the result of the intersection of their history with technological advances. *Conclusions:* These findings challenge oral health care practitioners to be sensitive to the contexts affecting their older client's oral health care status. They do not 'just go' to the dentist; they bring with them their past dental experiences and their hopes for the future. It matters how one is treated at this vulnerable time.

Key words: dental care; embodiment; older people; oral health; oral health practices

Background

Oral health is an important component of an older person's health, well-being and quality of life (1). The proportion of older people in the New Zealand population is projected to increase from 12% in 2001 to 26% by 2051 (2). With the 'greying' of the New Zealand population, dental health providers need to be increasingly aware of the special problems associated with the treatment of the older healthy person – they are a unique group (3). Over the past 20 years, changes have taken place that affect how the older adult oral health care needs are met. For example, a greater number of this age group are retaining their natural teeth and require dental care (3). This has major implications for prevention, promotion and treatment dental services for years to come. It is imperative that affordable, culturally sensitive and personally relevant oral health care is available for the older population in New Zealand.

The provision of public health programmes could be one approach towards meeting the oral health needs of older people. Dental public health programmes have clearly demonstrated the ability to improve health prevention and health promotion among younger populations. This country has a unique history in that a school dental service, conducted by trained dental health nurses (currently known as dental therapists), has been active since 1921 (4). This service, however, has remained focused on providing dental care for children and adolescents. A recent review of the national school dental service in New Zealand re-affirmed a commitment towards maintaining an effective and updated service for children (5). To date, no comparative service has been developed for the older population. It seems critical that the skills developed in the publicly funded service be utilized to improve the general health and quality of life of older adults in New Zealand (6).

Creating a new publicly funded oral health service for older adults challenges service providers to consider the multidimensional relationship between oral health, physical health and social connectedness in the context of this population where affordability and access to dental care appears to decrease with age. Coming from a different era to their oral health care practitioners, older people can often feel judged and in turn can misjudge their practitioners. A study of elderly Greek and Italian born Australians has shown that past experiences, false beliefs and negative attitudes towards dentistry, can negatively affect the treatment sought and their subsequent oral health status. Although participants in the Australian study generally knew about major oral conditions and treatments, they reported many barriers in seeking oral health care (check-ups and treatment), including costs, waiting lists and lack of confidence in the public system (7).

Andersson and Nordenram (8) reported that oral health maintenance can be both a positive and negative influence brought into adulthood from childhood experiences. For example, observations of their parent's oral health problems resulted in participants prioritizing dental health expenses over other expenses, while negative memories of dental visits acted against the maintenance of their oral health. These authors emphasize the need for service providers to take into account the influence of lifelong experiences on the older population. The influence here is mutual. From the dental health professionals' perspective, additional stress is reported when working with people who are still affected by previous negative dental experiences (9, 10).

The 'one size fits all' attitude commonly held by those in dominant cultural groups such as health professionals is often applied to older people. These hegemonic attitudes ignore the diversity inevitably present in such populations. Ettinger (11) highlighted the heterogeneity of older populations and argued that it is inappropriate to assume that all people aged 65 and over are largely similar. Different gender, culture, class, religion, sexual identity and so on influence different life experiences, expectations and attitudes and the value which an individual may place on healthy teeth. The few published studies focusing on elderly peoples' oral health care in New Zealand (12) have collected useful quantitative data, but little qualitative data are available that assists oral healthcare professionals in understanding their older clients' current context, their attitudes and the influence of their past experiences of 'going to the dentist'.

Studies in other countries provide insights into the multidimensional influence of oral health status on the older population. Avlund *et al.* (13) demonstrated a relationship between oral health and social relations in community dwelling people over 80 years of age and mapped possible behavioural and physiological pathways to account for this relationship. A longitudinal study by Marino *et al.* (14) demonstrated that there is also a relationship between oral health status predictors and quality of life in an older Australian migrant population. Together with other factors, their participants reported that consequent to their perceived negative oral health status, they were socially self-conscious, tense and embarrassed. Adding the dimension of goal attainment, Gagliardi *et al*'s (15) short-term study reported both positive and negative relationships with participants' quality of life. For example, those with the goal of pain alleviation met by tooth extraction reported decreased quality of life. While for other

participants, goal attainment increased their self-reported quality of life.

Together with the influence on an older person's quality of life as reported in the previous studies, oral health diseases/conditions and lack of oral care can pose a significant health risk for the older adult (1). The study reported here is a first critical step in developing effective consumer-sensitive interventions in New Zealand. Although the Ministry of Health guidelines for the improvement of our nation's oral health emphasizes the need for access to and use of dental care services, the focus of preventative dental care remains on the youth (16). The findings this study provide client-centred information about the older adult's knowledge, attitudes and practices in relation to oral health and draw attention to the need for an increased understanding of the older adult's unique context. Additionally, the results from this study highlight the barriers for older adults' access to affordable dental services.

The purpose of this study was to explore the perceptions of older adults regarding their oral health care practices. We use the concepts described by Peterson and Yamamoto (17, p. 4) of 'oral health' as being 'more than good teeth; it is integral to general health and essential for well-being'. Implicit in this concept are the notions of also being free from pain, disease, chronic conditions and congenital conditions which affect a persons ability to '…speak, smile, kiss, touch, smell, taste, chew, swallow and to cry out in pain' (17, p. 4).

Method

The philosophical assumption underlying this interpretative study is based on the viewpoint that oral health is best understood by examining older adults' perceptions within the specific context of their everyday living activities. The theoretical underpinning, which guided the data collection and analysis, was that of symbolic interactionism. A major tenet of this theoretical approach is that people are not passive, but active problem solvers and act out of the meaning they give to objects, people and events (18). For example, people who attribute pain and fear to dental visits may adopt particular oral health care strategies (avoidance, careful preparation and only attending problem oriented dental visits). Also underpinning this approach is that meanings change over time and under different conditions. Consequently, life strategies also change. While some participants in this study describe earlier life strategies, these were changed as new meanings developed in response to ageing, for example, the importance of keeping their teeth. Therefore, earlier avoidance behaviours may be overcome by new anxiety or fear reducing strategies. When conducting research from this perspective, it is important to leave the direction of an interview to the participant so that the meaning and the subsequent strategies examined during data analysis are those of the participant perspective but not of those of the researchers. Central to this approach is establishing a non-exploitative relationship between researcher and research participant. In this way, the researcher is more likely to gain insights into the ways in which people perceive oral health, the meaning they attribute to the maintenance of oral health and their subsequent actions in relation to their oral health care.

This qualitative interpretive study involved semi-structured interviews (45 to 90 min duration) with older adults (n = 19; 5 male and 14 female), aged 65 to 87 years. Participants were predominantly white, middle-class and retired. Ethical approval for the study was obtained from the Auckland University of Technology Ethics Committee.

Participant recruitment was by way of purposive sampling using snowball technique (19) where participants provided with researcher contact details were invited to inform others of the study as a method of participant recruitment. All interviewers (×3) received training sessions (2 × 2 h) in qualitative interviewing style. In keeping with the interpretative qualitative approach, the questions posed by the interviewers were broad, but focused on the participant's experience of 'going to the dentist'. Further probing questions related to early childhood experiences and to more recent experiences followed up on initial participant responses. Interviewers remained open to be directed in story-telling taken by the participant and used clarifying and reflecting questioning as needed. Interviews were audio-taped, transcribed and identifying information removed to ensure participant confidentiality and public anonymity. Data were analysed using a three-level inductive interpretative approach (20). Preliminary analysis highlighted salient concepts and concept indicators that were systematically coded. The theme conceptualized by us 'Mouth and teeth are embodied: the social and relational self' was built from codes relating to interactions with others. For example, one coding stream included comments about how their teeth looked; their diminishing mouth attractiveness consequent to the ageing process, their discomfort at being photographed and their embarrassment. As analysis developed, the social and relational self was conceptualized as relating, socializing, functioning and adapting. Relationships between concepts were then examined. For example, how people related and how they socialized was also associated with the functioning ability of their teeth. They described how they were careful about

going out to dinner and what they ordered so that they would be able to chew effectively and not end up with food sticking from their teeth. Further analysis involved an exploration of how participants' perceptions influenced strategy adjustments across and within a range of contexts. For example, participant strategies in relation to their perceived attractiveness as described above focused on their interaction with others. People covered their mouth when talking, tried not to smile, avoided being photographed, used breath fresheners and did what they could afford to maintain the health of their mouth and teeth. Analysis for all themes followed this iterative approach to coding, conceptualizing and examining relationships between concepts and themes with a particular focus on how participant perceptions gave rise to a range of strategies. QSR NVivo2 (2002). QSR International Pty Ltd. Melbourne, Australia qualitative analysis software (23) was used for data management. Rigour was ensured through collective agreement (co-investigators ×2) on the coding process and conceptual development. Memos recorded reflections and decisions made during the analytical process.

Results

Data analyses revealed seven conceptual themes: the dynamic influence of past experiences; dental 'calling rituals; the need to choose the right dentist; dental 'going' rituals; cost avoidance; the social and relational impact of ageing and finding bottom lines. While there was a range of previous oral health care experiences, there was similarity in participants' day-to-day oral care practices. Regardless of past experiences, oral health was a priority. While, for the majority of participants' income had reduced on retirement and the cost of dental health care had increased, they continued to persevere with dental treatment. For some, a decision point concerning ongoing treatment was reached when costs outweighed perceived benefits. Daily oral health maintenance was seen as a way to put off this moment of decision.

The dynamic influence of past experiences

For some participants, their primary stories were of childhood dental care visits. These sharp images carrying painful memories were told with immediacy and recounted effortlessly during interview:

I can remember … going to the dental clinic and the nurse pulling out teeth and me crying the place down and being so frightened and upset and … the nurse telling me off and saying, I was a very naughty little girl for making such a bad noise in her clinic. So that's my first experience.

If we knew our name was coming up to go to the dental nurse we would wag. We wouldn't want to go to the murder house.

For others, their primary story concerned loss of teeth. Regardless of their age at the time (adolescence, early adulthood, mid-life or older age), the loss was mourned. For some this had been a lifetime of grief. For those with more recent extractions, the feelings of loss were no less acute. *He lost his teeth when he was 19 and that was what happened in those days and he hated his false teeth.*

…He looked after his teeth … he was determined that he would have his teeth until he died… Then … he had to have all of them out and it was absolute disaster for him. …There was so much infection in his body and we hadn't realized it was coming from his teeth because he had been going to the dentist regularly … he must have been about 65 …I've never known anybody to be so particular about his teeth… 3 months later he was full of energy.

Some stories of early inevitable tooth loss reflected cultural beliefs and dental practices of that time. Participants talked of losing their teeth as a result of war, pregnancy or poverty.

She had a baby and she was very good and she was going to the dentist in her pregnancy … but after the baby was born, she had to have all of her teeth removed because … you know the gums had decayed and she had been going to Mr. […] and we were all a little bit upset about this because suddenly she had dentures.

I was 16 when I had them out … in those days, you had to have 3 months with absent teeth before you got your next lot in and I had my first boyfriend and I was going to work, going on the tram. He was so nice, he used to sit at the front of the tram and I would be up the back, he would pull faces at me and make me laugh. I still get embarrassed about that.

Personal stories were joined with family stories. Memories of mothers, fathers, aunts, uncles, sisters and brothers entered the storyline and on occasions were accompanied by the showing of photographs. Often related to tooth loss, but also to the experience of family members having dentures, these stories served to reinforce a particular perspective towards tooth maintenance. In some cases, the perspective was that false teeth were never good; in others, it was that one-day, they might be inevitable.

While, there were few stories that supported the efficacy of false teeth, there were many that had influenced the day-to-day tooth maintenance and care. The response to painful memories of personal or family dental experiences ranged from: never going to a dentist again *I'm not going back to the murder house thank you*, and going when called, I *must say*, *we go*

because the dentist sends a card along with an appointment every 6 months.

Dental 'calling' rituals

Being 'called' appeared within the participants' stories as part of the dental ritual. As participants recalled their childhood memories, they spoke metaphorically of '*the murder house*' and '*the torture chamber*'. They told stories, peppered with nervous laughter, of waiting in terror for their name to be '*called*' to go to the dental clinic; '*wetting myself*', and taking turns to avoid the call. In contrast, there were different childhood memories of regular and fun 'dental callings'.

I used to have to go into the city by tram and I always quite liked it, I've never been frightened of the dentist.

In adult life, 'dental callings' that evoked childhood memories continued. Participants were 'called' either by the dental surgery receptionist to remind them of visits or by a dental problem such as toothache, gum soreness, loose teeth or painful ill-fitting dentures. One participant had not visited the dentist for 5 years because she had not been 'called' to make an appointment:

I might go for a check-up if he rings but he always sends me a note or if I got toothache. Like I said, I've never ever had toothache.

Those with undisturbed childhood memories or who had developed a determination not to repeat the denture experiences of other family members were more assertive about their dental care. They visited regularly: *I've been going to the dentist every 6 months in the last 24 years since we retired*. They were knowledgeable about the dental work they received and engaged in conversation with their dental professional. '*I'm going to see him next month and I will talk about it with him*'. When their dentist retired or moved, they '*shopped around*' and '*searched carefully*' for a replacement and if satisfied, stayed. '*I've been with him ever since*'. Regardless of whether the experience in childhood was horror-filled or uneventful, all participants reported ongoing concerns about their teeth in the context of growing older.

A dental visit surfaces hopes and fears

The participants reported a change in oral health care service need relative to growing older. They had lost the ability to eat particular foods. They described receding gums and fillings falling out. '*They drop off my teeth; I heard the actual clatter of metal of fillings falling off onto my plate*'. Each dental visit was often at a personal and/or financial cost. They needed to work out what they were going to do each time when something happened to their teeth or when they discovered the need for further treatment during a clinic visit. Yet, they persevered because in their opinion, they could not afford not to.

My dentist, my dental hygienist: choosing the right dentist

Participants sought approval about the state of their teeth and mouth from the dentist. They talked often at length about the quality of their dentist, dental hygienist or dental technician. While they strategized to get the cheapest possible option, their decision was not always dependent on financial cost. Before deciding where to go for treatment, a number of issues were considered: the dental professionals' credentials; their personality; presentation; reputation and dental clinic access and location. One participant told how her husband insisted that she choose a specialist for treatment rather than their regular dentist.

He hated his false teeth so he said 'I don't care what it costs go to someone else'.

Dental 'going' rituals

A great deal of planning went into each visit to the dentist. The participants talked of working around driving routes, heavy traffic times, dental surgery access (parking and stairs) and making sure there was a back-up if they could not drive home. Two processes were evident in their planning. While they attended to the practical realities of going to the dentist, they also re-enacted rituals from childhood. The recalled that fear had its corollary – a system of rewarding.

Horror stories were twinned with rewarding stories. Childhood rewards took a variety of forms and came primarily from the dental nurse or parents. The participants remembered the dental nurse's gift of a happy face or a buzzy bee made out of cotton mouth plugs; special food or visits with their parent to the local tea rooms and for good behaviour, the liberal receipt of praise. One participant, who was a child during the depression of the 1920s mentioned about the precious gift of an apple, rare and costly in the context of the time.

Adult rewarding rituals mirrored those of their childhood in that self-initiated, adult rewarding contained the symbolic meaning of childhood treats. A number of participants carefully planned coffee or a special lunch with friends, a shopping spree or just making a day of it. '*Then I went down and shouted myself a coffee*'. Both in childhood and in adulthood, these rewards reflected achievement and the overcoming of a challenge. In their mature years, these participants were focused on the 'preservation of the self' as they worked to avoid further tooth loss.

Avoiding further loss and cost: oral health preventive care

The participants paid attention in changing and improving their oral hygiene practices. This attentiveness reflected their serious concern about their teeth and mouth. They not only listened to the advice of dental hygienists, but also informed themselves of new techniques and oral hygiene products.

Two years ago, I was put onto Coalbase Neutro-Fluro 5000-plus. And you do it every night and you brush for about 2 min and then you don't rinse and you are not suppose to drink for half an hour.

If the new information fitted their social belief systems, they comfortably incorporated the technique or product within their everyday dental rituals. If contrary, they were not considered. For example, the advertising of gum as a dental hygiene product has had little effect on these participants. All said they would never chew gum, although one admitted to this practice but ONLY in the privacy of her car.

While many attended periodontal clinics, few participants flossed regularly. Some had heard about tongue cleaning, but the majority did not consider this or flossing a usual everyday practice. Daily oral health maintenance included brushing between three and four times a day, using mouthwashes and fluoride preparations and not eating after their last clean at night. Specific brushes, dental sticks or toothpicks were often used and they adopted specific cleaning techniques as taught by the dental hygienist. Participants with dentures used a wide variety of cleaning products from denture specific cleansers to household bleach.

For all participants, the maintenance of physical health gained via nutrition was a priority. They connected their eating habits with healthy teeth and commented on the change in food choice that either ageing or dentures had produced. Following the advice of health professionals, some participants stopped eating hard foods although for many, their fears of breaking a tooth or difficulty with dentures had already modified variety of food intake. Their efforts to maintain the health of their mouth and teeth, however, were more than utilitarian; they were central to their sense of self-esteem.

Mouth and teeth are embodied: the social and relational self

Many participants were exquisitely aware of their public presentation. Over the years, they had learned mannerisms and ways of posturing that presented their best 'side'. A number of the women talked about how they practiced 'not smiling' or covered their mouth when being photographed. Mannerisms even extended to everyday social contact. *It's your image when you are mixing with other people; it's… your relationship more personally for breath control, bad breath.* There was a sense that appearances could be potentially embarrassing as growing older increased the gaps between teeth and caused food to be caught. The negative perceptions of false teeth reinforced some participants' resolve to keep their remaining teeth.

I was standing at the door with another ex-solider and he said to me 'you know …, I don't recognize any of these men'. I said 'Don't you'. He said 'No. They've all got false teeth and their expressions are different'. I've often thought of that and it's true that once people lose their own teeth, their expressions change.

On the other hand, those with dentures 'made the best of it' recognized that their situation was different, but still faced the dilemmas of maintenance of their dentures.

Getting to the bottom line: resolving tensions and dilemmas

Regardless of whether the participants were fully or partially dentate or edentulous, they wrestled with dilemmas and tensions. On one hand, it was important that they maintained their health and comfort in their social milieu. On the other hand, ageing brought with it increased dental care needs and associated costs. They weighed up the pros and cons before deciding their bottom line. For some, it was when they required a root canal or an implant. For others it was whether their current set of dentures would be 'good enough for the years remaining'.

For all participants, considering the future was a challenge as they wrestled with issues of continued access to dental care, balanced with dwindling funds and minimal reimbursements. The hopes for each dental visit were that it would be affordable and that no treatment would be required. They feared that their bottom line would be reached.

I… would have descaling of my gums and I really realized how lucky I was because I hear of other people who have had abscesses and goodness knows what and lost teeth and everything. Here I am 76 and I'm still going fine. I'd better not speak too soon.

Discussion

Analysis revealed that central to this study is the notion that the mouth and the teeth represent the embodied self. They are an intrinsic aspect of 'who I am'. They are the objects of the personal, public and professional gaze. For many this surveillance results in self-protective behaviours to avert shame. In the social context, the state of a person's mouth and teeth can have a profound impact on their self-esteem. This is particularly so in the current world of 'pearly whites' that are

even, glowing and seated within a young unlined face as promoted by the media. Ageing challenges the symbolic representations of the ideal healthy oral appearance. Teeth discolour with age, gums recede and for some the ageing process leads to fillings falling out and food getting caught between the gaps. Their everyday reality starkly contrasts with media images. There is, however, an increasing demand for aesthetic and restorative dentistry as well as an increasing ability for the oral health professionals to meet this demand (21). Unfortunately for many of these participants, the cost of accessing such dental treatment would be prohibitive.

The age group represented in this study came from an era when dentistry was in its infancy, technologically and professionally. Many participants had lived through war and depression, times when removing teeth and having 'falsies' were the norm and these findings have some similarity with those of Marino *et al.* (7). Such findings challenge the societal myth that older people's oral health status is the result of neglect and an inability to change with the times. These women and men 'got on with it'. They adapted to and incorporated many new oral health techniques and practices. They did not 'just go' to the dentist. Yet in today's culture, having false, crooked or discoloured teeth is often attributed to neglect. A recent Australian study reported no relationship between socio-economic status, poor oral health and neglect in self-care (*22*). The older people in this study demonstrated an awareness of the social discourse regarding healthy teeth: shining white, straight and complete. They were sensitive to the approval or disapproval of others, particularly their dental care providers.

These participants demonstrated remarkable resilience and determination. They learned new techniques of daily oral hygiene, adjusted the type of food they ate and maintained their dental health until they just could not afford it any more. Some over-rode previous negative experiences and family stories to visit the dentist. They were assertive.

I know I went back to my original dentist and I said to him I had left you because you keep nagging me because I can't open my mouth and I can't open my mouth. He never nagged me anymore.

They looked for a collaborative partnership with their oral health professional that would involve mutual respect, information sharing and collaborative decision-making.

Conclusion

The complex dimensions of daily living experienced by the participants captured in the interviews were a strength of this study. The results have demonstrated the care that people take with their teeth even though for some, their visits are 'problem-oriented' rather than preventative. A limitation of this study is the homogeneity of the participants. The majority came from working or middle class backgrounds, owned their own homes and cars and was predominantly women. Additionally, we recruited few Maori. The findings therefore are more representative of mainstream European oral health care experiences. A more heterogeneous sample could have added complexity. For example, the male participants, though small in number, recounted poignant stories of their dental experiences in the field of war. Future research involving a more diverse sample, might examine more fully, the impact of previous experiences on older peoples' current oral health status. Additionally, there is a need to research the potential for publicly funded health care similar to that already provided for the younger population in New Zealand. Studies such as these will assist in the proactive development of dental health services for the future older population.

This study provides a unique insight into the context within which older people work to maintain their oral health. We found that it was much more than 'just going' to the dentist. These findings challenge oral health care practitioners to be sensitive to older people's past and current experiences of dental services. How they are treated at this vulnerable time can make a difference to self-esteem and can challenge or support their commitment in prioritizing oral health care needs.

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