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Attitudes to and perceptions of oral health and oral care among community-dwelling elderly residents of Stockholm, Sweden: an interview study*

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Dates:
Accepted 5 November 2003

To cite this article:
Int J Dent Hygiene **2**, 2004; 8–18
Andersson K, Nordenram G:
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Abstract: The aim of this study was to document perceptions of oral health of community-dwelling elderly people and how it had been affected through life. Twelve individuals (mean age 78.2 years) were gradually recruited to an interview study. The interviews were conducted as conversations, and the topics in a guide model were introduced only if they did not arise spontaneously. The interviews lasted 60–90 min and were tape-recorded and transcribed *verbatim* and analysed by the phenomenological–hermeneutic method. The interviews dealt with perceptions of growing old, life style, general health, former dental experiences, dental care in adult life, current oral health, general medical care, dental care, oral hygiene, dental hygienist care and the level of participation in treatment decisions. The interviewees were generally satisfied with their present oral health and often referred to their parents' oral problems as deterrents. Dental experiences from childhood, in association with the welfare state and personal financial security, were factors which influenced attitudes and perceptions of oral health and oral care. Although dental care was regarded as very expensive, it had been given priority over other expenses in adult life. The results confirm that the dental hygienist must take into account the importance of oral health to well being in old age and be aware that in elderly people, perception of personal oral health is multifactorial, influenced by life-long experience.

Key words: oral health; elderly; dental hygienist; well being; interview study; phenomenological–hermeneutic

*This study has been supported financially by the Swedish Senior Citizens Society (Sveriges Pensionärsförbund), Stockholm.

Introduction

The proportion of elderly in the Swedish population is increasing rapidly. A similar trend is reported in almost all industrialised countries (1). It is assumed that increased life expectancy will be accompanied by continued well being and functioning in daily life in old age and will not be marred by deterioration in quality of life (2).

Oral health as a part of general health is of everyday importance for the elderly. Kressin *et al.* (3) suggests that oral health-related quality of life represents a separate and distinct part of health-related quality of life. Appollonio *et al.* (4) found that natural dentition in an older population was associated with lower mortality risk than either inadequate natural dentition or dentures.

Improved living conditions may also have an impact on health perceptions and behaviour. In Sweden, edentulousness is decreasing and the proportion of elderly individuals with natural teeth, restored with fillings, crowns and bridges, is increasing (5–7). Concomitantly, aesthetics and dental health have probably become more important for elderly people (8–10). Improvement in dental health among the elderly is also accompanied by an increase in regular dental attendance (6, 9, 11).

To maintain a healthy natural dentition, adequate oral hygiene is necessary. It is unusual for the current generation of elderly people to have received information about the importance of oral hygiene and self-care (12–14): some have never visited a dental hygienist for oral hygiene instruction and advice. Although many elderly people find it difficult to manage their own oral hygiene satisfactorily, they would not, as a matter of course, consult a dental hygienist when their oral hygiene efforts fail (15, 16). The dental hygienist must be aware of this in treatment of ageing patients.

Few elderly people are well informed about their medical conditions and prescriptions, nor the potentially deleterious effects on oral health. Mouth dryness is a common side-effect of many drugs and is a potential threat to oral health (17–19). Elderly people are also at a high risk of developing oral diseases, because part of the ageing process itself is a gradual decline in such faculties as eyesight, hearing and mobility, all important prerequisites for good oral self-care (20, 21). The dental hygienist must be aware that the cause of oral problems in elderly patients is usually multifactorial, and must adjust individual treatment accordingly (22, 23). Several studies have shown that oral health in the elderly can be maintained through individualised oral care, even in those with chronic disease (18, 24, 25).

The aim of this study was to describe and analyse the opinions of community-dwelling elderly people about their oral health and oral care and how it had been affected through life. The study was approved by the local Ethics Committee and was conformed to the Helsinki Declaration.

Study population and methodology

Twelve individuals were gradually recruited at random from a group of 79 people who had participated in an earlier clinical project (26). These 12 individuals were contacted by telephone, and all consented to participate in the study. They were informed verbally and in writing about the aim of the study and the methods, and that participation was voluntary. The participants had the option of choosing to be interviewed at home or at the dental school in Huddinge. A separate room in a small library was used at the school. Two interviews were conducted in the respondents' homes and the remainder at the school.

The interviewer (K.A.) had an interview guide model as a tool to cover the interrelated constituents of the phenomenon 'oral health' (Fig. 1). The introductory question was 'Can you tell me about your own experiences of oral health and oral care throughout your life'. The interviews took the form of conversations and, if the topics in the model did not arise spontaneously, the interviewer asked supporting open-ended questions (27).

It emerged that one of the participants had been diagnosed with dementia and could be interviewed only with her husband's assistance. She was excluded from the study because the interviewer could not interpret the validity of these proxy answers.

Sociodemographic characteristics such as age, gender, birthplace, educational level and social status were noted. The respondents

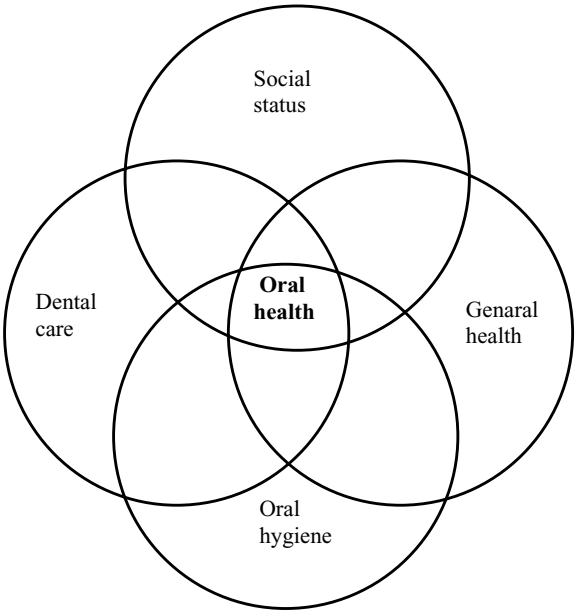

Fig 1. A guide model of interrelated constituents of the phenomenon 'oral health' used as a support for the interviewer.

were encouraged to speak freely about their childhood, family, social relations, early memories of dental care, their current health, their perception of general and oral health, medical and dental treatment, their present life situation and their future. The interviews lasted 60–90 min and were tape-recorded. They were transcribed *verbatim* by the interviewer in all 248 pages – 14 type-written and single-spaced.

The data were analysed independently by two researchers (K.A. and G.N.). The outcome of every interview was discussed until a consensus was reached, before proceeding to the next interview. After 11 interviews, no new information was found: similar opinions, answers and stories recurred in the narratives.

Analysis of the interviews

The interviews were analysed by the phenomenological–hermeneutic method inspired by Giorgi (28): the phenomenon appears through the individual's description of the phenomenon in his/her daily life, through the researcher's interpretation of the narrative.

The researcher must give the interviewee time to describe his/her own views and understand the other person through the world in which the researcher lives. In this process, the professional preunderstanding of the researcher is an essential factor. The features from the subjects' stories are brought together with the concepts of the discipline in question into a more general context. The understanding is shared by the respondents and the researcher in relation to the discipline in question (29). The interpretation comprises a dialectic between the meaning in the naive understanding and the objective meanings found in the structural analysis. This qualitative phenomenological method goes from description via reduction to the essences and recognition of the phenomenon through a relevant number of interviews. The phenomenon in this study is the respondents' perception of their oral health and its relative importance in the context of their lifestyle when younger and in their current life situation, through a detailed description of life experiences, situations, opinions and thoughts.

The analysis method contains several steps, which are used in the process of creating a consistent statement of the meaning of oral health from a life perspective, shown with an example in Table 1.

The first reading of the entire interview is to get a general sense of the whole (Table 1, step 1a). This naive understanding of the text has to be explained by means of a structural analysis. When the whole is grasped at a naive level, the researcher goes back to the beginning and reads the text once more with a specific focus on the phenomenon, in this case, oral health and its importance in relation to earlier and current lifestyles (Table 1, step 1b).

Table 1. **Example of the analysis process with focus on 'previous experience of oral health and oral care'**

Step	Reading process
1a	First reading for naive understanding
1b	Meaning unit with specific focus
2	Expressed meaning unit (structural phase)
3	Transformed meaning unit (into researcher language)
4	Synthesise

1b, Meaning unit with specific focus: 'But I remember at school, ... we lived in the country ... there was this dentist ... The dental van (mobile dental surgery) ... which went from school to school, had a waste pipe that ran out into the playground. Terrifying for us as schoolchildren, we saw the pool of blood ... which got bigger and bigger. I was so scared, I sneaked away home. I was just so incredibly frightened. That was the first time ... yes it was ... and what they did ... I don't remember. I remember that ... yes, I was eight years old ...'

2, Expressed meaning unit (structural phase): 'A' recalls that as a schoolchild, a mobile dental clinic was parked in the school grounds and at the end of the waste pipe, which ran directly onto the ground, there was a pool of blood which gradually enlarged. 'A' says she became terribly frightened and ran away home when it was her turn to go to the clinic for treatment. It was the first time she had ever been to the dentist but she remembers nothing about treatment. 'A' remembers she was 8 years old.

3, Transformed meaning unit (into researcher language): 'A' describes a terrifying experience about school dental service with clear and frightening memories of her first contact with dentistry at age 8. She became so frightened that she ran off home. 'A' has no recollection of the actual dental treatment she underwent.

4, Synthesise: Terrifying memories and fear from the first contact with school dentistry. Ran away from the threatening experience. No lasting memories of the dental treatment.

In this structural phase, the text is regarded only as a text and the specific aim is to discriminate the meaning units, first as a spontaneous discrimination expressed entirely in the respondent's language (Table 1, step 2).

In the next step, the meaning units are transformed into the researcher language, revealing the phenomenon, in this case, oral health and its importance in relation to earlier and current lifestyles (Table 1, step 3). This transformation is necessary because the descriptions by the respondents express realities, and the researcher wants to elucidate aspects appropriate for the understanding of the text.

The following step is a more advanced understanding: to synthesise the insights in the transformed meaning units into consistent description of the events supported by the explanations (Table 1, step 4).

To achieve the essence, all interviews were reflected upon and put together into dimensions of the phenomenon oral health and its importance in relation to earlier and current lifestyles (Table 3).

Table 2. **Sociodemographic characteristics of the interviewees**

Person	Age	Gender	To Stockholm	School	Status	Living
A	80	Man	1941	College	Married	Own house
B	76	Man	Native	Elementary	Married	Own house
C	81	Man	1943	University	Married	Own house
D	78	Man	1942	University	Married*	Own house**
E	77	Man	1936	Elementary	Divorced*	Own house
F	81	Woman	Native	Elementary	Widow	Own house
G	81	Woman	Native	Elementary	Married*	Own house**
H	75	Woman	1949	Elementary	Married	Own house**
I	80	Woman	Native	Elementary	Married*	Apartment**
J	76	Woman	1936	Secondary	Married	Apartment
K	75	Woman	1940	Elementary	Divorced	Apartment

One person had grown up as an only child. All the others had sisters and brothers (mean of 4). All respondents had children of their own (mean of 2).
*Living with ill/handicapped partner.
**Has holiday cottage with a garden.

Results

The mean age of the participants was 78.2 years (SD 2.5). Personal data such as age, gender, duration of residence in Stockholm, educational level, social status and standard of housing are shown in Table 2.

Growing old

Managing independently

All respondents discussed their experiences and opinions of being/growing old. It was important to be able to manage by oneself and not become dependent on others. Feelings of insecurity were expressed by some respondents when talking about the future, while others lived according to *carpe diem*: live for today and let tomorrow take care of itself. Some were grateful for their relatively high standard of health and independence in comparison with chronically ill or handicapped people of the same age. In their stories, the respondents generally emphasise good coping skills.

'I can manage on my own and want to do everything for myself.'

'I worry about not being able to care for myself and who would help me then.'

'This happens to all of us sooner or later. This is the only time nobody wants to be first in the queue.'

'This is the path we all must tread.'

'One adapts . . . I believe that is what one does . . . it is more enriching that way.'

'Well if you dwell on it it's not much fun, but you just have to stop dwelling on it. It won't change matters. You have to take one day at a time, adapt to things.'

'Remember better times, that is all one can ask.'

'I look at my school classmates and compare myself with those with walking frames wandering around the marketplace down there, they're the ones I'm sorry for. Many who have had strokes. When I see that I really feel grateful for my own situation and understand and feel joyful about old age. Wealth is not as important as health. You can't put a value on your health.'

That the participants had had to adapt to their current state was obvious.

'Of course I can do less than previously . . . that is obvious, I have noticed that.'

Financial status

Several participants emphasised the importance of financial security in old age.

'I never need to go without, we are financially secure.'

'I have a good retirement income/pension so I get by.'

'I am comfortably off, my outgings are small and I live modestly.'

Life world

Life-style

Many respondents expressed an awareness of health factors such as an adequate, balanced diet and physical activity.

'I think I have been observant about what is good for you. We are more active than my parents were in their old age, there is a generation gap.'

Physical activities included swimming, bicycling, gymnastics, walking, dancing and gardening.

'I have exercised and danced a lot.'

'I take lots of walks, I am very active, I look after my house and garden.'

The participants also reported more sedentary activities such as watching television, playing bridge, embroidery and reading. Social contacts with old friends and former colleagues were common. Social contacts with children and grandchildren were mentioned frequently as highly appreciated and very important.

'Yes, it is great to live long enough to have grandchildren and follow their progress: the youngest is only a week old.'

Four of the respondents took care of a dependent spouse. This restricted their daily activities, although with one exception, they had accepted their situation. Their adaptation to the present limited lifestyle was obvious.

'I would like to go away but I can't tell my husband that. He needs a lot of nursing care, often becomes acutely ill, ... has to be rushed to hospital. I look back on the good times ... we (my husband and I) used to travel a lot ... we are 81 and 84-year-old now ... one can't expect too much.'

'I look after my husband, I don't know how long I can keep it up ... I would like to go away on a visit to my children and grandchildren. Of course I can leave him on his own for three to four hours but I worry the whole time. What if something should happen while I am away ...'

'My wife is incontinent, I would like to go travelling, but travelling by plane is so inconvenient for her.'

'I look after my former wife who has dementia. I would like to get away from it all, sometimes I get so tired I become nasty. I have my own life to live, I am happy enough and lead a full life.'

Participation

The respondents considered that participating in and receiving information about one's state of health was important. The level of participation differed. Many wanted more respect in encounters with medical personnel, more opportunity to talk to the doctor, some wanted to 'be seen'/acknowledged

'I wish they would be a bit more interested in ... how things really are ... of course I get by ... I don't feel too bad ... really I don't ... there are so many others who (are worse off) ... complain ..., yes I get by.'

Some participants wanted information about treatment alternatives, their pharmacotherapy, the effects of the drugs and the reason they were being prescribed. Some individuals described the importance of active participation in decision making about their treatment, but also their right to refuse treatment after information. They emphasised the importance of informed refusal as well as informed consent.

'This authoritarian approach, I don't hold with that any more ... I want to know and I try to write down what I want to know ... This is about my body and I want to know as much as possible. I know myself best.'

'I want to know ... I want to participate myself. We have always discussed what is to be done ... but when I was younger I had enormous respect for the dentist didn't dare to question anything or protest.'

'When I received training both before and after (heart) surgery ... that was important ... I didn't feel frightened.'

'I have prostate cancer ... (refused surgery) ... I want to live like a human being.'

'Incontinent ... don't know if I want to have surgery, don't know if it will be successful ... I think about it and haven't decided yet.'

General health and medical care

General health

All respondents described their general health as good or fairly good. They have ailments but 'feel well'. Considering the panorama of diagnoses and functional disabilities reported, the use of medication and frequency of contact with medical care facilities, it seems unlikely that a professional, objective assessment would conclude that their general health was good.

Examples of reported diagnoses or symptoms are B-12 deficiency, ventricular cancer (treated), cardiac infarction, cataract, dorsal pain, fatigue, forgetfulness, gastritis, heart disease, hypertension, hypotension, incontinence, joint pain, osteoarthritis, respiratory insufficiency, stoma after colonectomy, stress and depression.

The respondents have a holistic, rather than a clinical view of their personal health and describe their health in the context of quality of life rather than as an isolated issue.

'I think it feels great to have managed independently for so long, after all I am 81 years old. I feel joyful at being alive.'

'Every day that I can get up is a gift.'

Medical care

Few of the respondents were completely confident about medical care, most reporting both good and bad impressions and experiences. The complaints were mostly about how they were received by medical personnel, poor information and about lack of continuity of doctors.

'Changing doctors makes it hard to establish good contact, I met one very understanding doctor who left.'

'She was a bit nonchalant, sat there chewing gum ... that irritated me actually, some doctors have no respect for their patients.'

'Frequent staff changes, hard to establish contact with new doctors, and the quality varies.'

'The doctor was stressed and frustrated ... not to take the time to talk and listen to me, I felt snubbed.'

'But finding it (contact with a doctor) is like looking for a needle in a haystack.'

On the other hand, the patients whose doctors give them adequate time and information express confidence in and loyalty to their doctor.

Previous experience of dentistry

Personal recollections of dental care

The respondents did not report any extensive habit of dental care from childhood. Quite the contrary, most of them have terrible memories of childhood dental experiences.

'It hurt ... and there was this big fellow Svante, big and powerful like an Olympic weightlifter ... I sat in the dental chair and refused to open my mouth.'

'The dental van (mobile dental surgery) ... which went from school to school, had a waste pipe that ran out into the playground. Terrifying for us as schoolchildren, we saw the pool of blood ... which got bigger and bigger. I was so scared, I sneaked away home I was just so incredibly frightened.'

'When I was in Grade III, we went to a ... well he was always inebriated, alcohol abuse or something, you know he was always flushed and he was so rough, ... and he used to yell.'

Parents' oral health

Their parents did not give priority to oral care and oral hygiene. Dental treatment was expensive and unavailable in rural districts, where families were large and often impoverished.

'My face was very swollen and my dad came and gave me some snuff. It was the only medicine we had really, and I vomited and then fell asleep. I promised myself I would never have toothache again ... it was just so awful.'

'When I was a child dental health wasn't very important ... it is so long ago. I really can't remember ... whether I brushed my teeth as a child.'

'My father didn't think it was important ... having nice teeth was not the least important to him.'

'We didn't brush our teeth, there were so many of us and we didn't have any holes. I bought toothpaste and a toothbrush when I was 15 or 16 years old ... when I started work.'

Memories of their parents' bad oral health and dental status were deterrents.

'My mother had false teeth and I thought it was just awful, I thought they wobbled and rocked around in her mouth when she tried to eat. Yes, it was hard ... most of the time she left them in a glass of water.'

Present oral health and oral care

Oral care in adult life

By the time the respondents were old enough to leave home, the Swedish Welfare State had been established, welfare was increasing and the urbanisation movement was underway.

Most of the respondents went to dentists as adults once they could afford to pay for themselves.

'As soon as I got a job, I took myself off to the dentist.'

'When I moved into the city as a 16-year-old I went straight to the dentist to get my teeth seen to.'

Regular dental care gradually became more and more common. The women generally report established regular dental visits earlier in their adult life than the men.

The national dental health scheme, introduced in 1974, with the aim of making dental care financially accessible to all citizens, may also have had a positive impact on the respondents' regular dental care later in life, but none of the interviewees explicitly mentioned this (30).

At the time of the interview, all respondents were regular dental attenders and nine were also undergoing regular hygienist care.

Present oral health

The respondents were generally satisfied with their present oral health with only minor complaints.

'Sometimes I get a tingling in a tooth but that ... um ... toothpaste relieves it. It tingles mainly ... when I brush my teeth and get cold water on it. He (the dentist) paints something on it and it is fine for a while, but it keeps coming back.'

Several factors influence the perception of their current oral health status. They describe the importance of oral health for mastication, appearance, nutrition, well being, laughing, social contacts, fresh breath and feeling socially secure when communicating and eating.

'It is important to feel healthy through and through, I can chew anything ... I can even crack hazelnut shells with my teeth.'

'Can chew everything, feel satisfied, can laugh and that is a good feeling.'

'There is nothing worse than bad breath.'

'After my implant treatment I don't get anxious about my teeth and feel secure in social situations.'

Dental care

The stories about dental care also included complaints about dentists under stress, but there was greater understanding.

'I trust her but I think she is in a bit of a hurry ... but I suppose she is also stressed, like everybody else.'

'It happens very quickly, they listen to me ... I suppose ... I don't know ... I never really know what they are thinking.'

'I get dry in the mouth, but it's not something I ask them about. They're in a hurry, I get into the chair and when they are finished I leave.'

The interviewees who were dissatisfied with their dentists, changed dentists and finally found someone they liked and trusted.

'I actually had a dentist who ruined two of my teeth ... deliberately. So I went to the dental school where they have no interest in doing such things.'

'Went to a group practice with three dentists, then I thought ... I didn't see the same dentist each time ... their accounting system wasn't very well organised either, they demanded payment for services for which I had already paid and had receipts. That was when I left and now I go to a different dentist.'

It is more complicated to change and choose providers of medical care, and this may explain why there are fewer and different kinds of complaints with respect to dental and medical care.

Financial aspects of dental treatment are mentioned in all the interviews, while the cost of medical care is not mentioned. This is not surprising, because of the differences in the national health schemes for dental and medical care.

'Of course it is expensive, so I suppose we will have to go without something else. I think it is important for me to keep my teeth. Teeth are important. If one can afford to run a car and maintain it then one can afford dental care.'

Oral hygiene

All the respondents were aware of the importance of good oral hygiene habits and their knowledge of oral hygiene was fair. This attitude has been formed over a lifetime and many respondents talked about having a thorough daily oral hygiene regime nowadays, although some admitted to occasional lapses.

'Oh well, I brushed my teeth at night, I didn't think it was very important, ... so I could just as well skip it. But you can't really get away with that, you have to be thorough every day. When I was around 55, I started to brush my teeth more regularly and to clean between my teeth ... I understood that I had to do this if I was going to have any teeth left, I thought it was necessary myself.'

In retirement, there is also more time to spend on the oral hygiene procedures.

'It is different now, when I used to work, started at 6.30 AM and there were many times when I didn't brush my teeth in the mornings. But in the evening I've always brushed my teeth. These days I brush twice a day and also whenever I am going out to be in the company of others.'

Dental hygienist care

Information

All respondents had experience of a dental hygienist and nine had regular dental hygienist care. Positive comments about the dental hygienist included good information, valuable instruction and advice and improved oral health, with fewer cavities than before. The treatment is seen as cost-beneficial.

'She explains to me how I should use an interdental brush, floss and such. I haven't done this before, ... so this is something I have learnt.'

'I have bad breath ... I have been given advice about some sort of tablet that I can buy at the pharmacy.'

'I feel cleaner and I keep my mouth cleaner.'

'I think that my teeth ... I don't get as many holes now.'

Complaints

There were fewer complaints about dental hygienist care than dental care. Some thought it was unnecessary and that a visit to the dentist was enough.

'That's all very well, but this going to the dental hygienist, I don't know ... whether I think it is so important. In some ways it seems unnecessary.'

Some respondents described dental hygiene treatment as painful.

'Tartar has to be scraped off, of course, they insist on doing that, ... it is so unpleasant.'

'A heavy-handed dental hygienist, I had to take painkillers after every appointment.'

Some described the dental hygienist as a supervisor or controller and they were afraid that their standard of oral hygiene would not meet with the expectations of the dental hygienist.

'The dental hygienist is never satisfied, and of course one wants to be good enough.'

All the respondents were aware of the importance of good oral hygiene. Some participants were anxious about how they would maintain their oral health if they became ill or disabled and dependent on others for oral hygiene.

Table 3 presents a summary of the results, in main categories and subcategories, with comments. The reported findings can influence oral health and oral care directly or indirectly, and positively or negatively.

Discussion

The interviewees present a living illustration of modern Swedish history. They were born after World War I and grew up during the 1930s, which were the depression years. Many lived in the provinces, in big, often impoverished families. Their adolescence was marred by unemployment and World War II.

After World War II, the welfare state expanded and the economy improved. It was possible to build a house, to buy a car and to have holidays abroad. In this context, it is not surprising that several respondents talk about financial stability as an important security factor.

Higher education such as college and university was expensive and uncommon, especially for girls. In this study, seven of the respondents had been educated only to elementary

Table 3. **Main and subcategories and comments to the perspective of oral health and oral care**

Main categories	Sub categories	Comments
Growing old	Manage independently	Carpe diem
		Acceptance/adjustment/coping
		Insecurity about the future/dependency
	Financial status	Pension
Life world	Life style	Awareness of health promoting habits
		Active life/social contacts
	Participation	Caring for dependent wife/husband
		Respect for integrity and autonomy
		Informed consent/refusal
		Less respect for those in authority
General health and medical care	General health	Ailments
		Feel well
	Medical care	Confidence
		Complaints
Previous experience of oral health and care	Memories of own dental care	Terrible memories
		Dentist without empathy
	Parents' oral health	Dental care not given priority by parents
		Parents' bad oral health/deterrent
		Restricted family economy
Present oral health and oral care	Oral care in adult life	Own economy
		Social progress
		Increasing awareness of oral health
	Present oral health	Satisfied
		Few complaints
	Dental care	Functions, social contacts and appearance
		Complaints/change of dentist
		Complaint/expensive
	Oral hygiene	Awareness/knowledge
		Importance of oral health
Dental hygienist care	Information	Information and instruction
		Cost-beneficial (better oral health)
	Complaints	Hygienist critical
		More than one therapist/too many
		Painful

school level. To find jobs, young people had to leave rural districts and move to the cities. Young women usually had unqualified jobs as housemaids or clerks in offices. They married young and when they had children they became full-time housewives and mothers.

One of the obstacles to regular dental care cited by the respondents was limited family finances in childhood. A legislation passed in 1938 gave schoolchildren the right to free public dental care. However, only a few of the respondents had received any regular dental care as children, and a visit to the dentist was usually for emergency care. There were few dentists at that time and they had limited training in pedodontics. It is not surprising that almost all the respondents reported terrible memories from their early dental visits.

The free public dental care for school children introduced in 1938 was followed in 1974 by the national dental health scheme which was intended to make dental care financially accessible to everyone (30). These ambitious programmes combined subsidised fees for dental care with dental health education to achieve positive changes in dental health behaviour, with respect to diet, oral hygiene and dental treatment. Regular dental attendance and brushing with fluoride toothpaste have gradually been adopted as norms in Sweden.

Later in life, all the respondents had established regular dental attendance habits and were reasonably satisfied with their present oral status. The importance of oral health for social, functional and nutritional reasons expressed by the respondents has also been noted in several other studies (8, 24).

All respondents regarded their general health as good: they 'felt well', despite ailments and medication. Subjective health is of great importance for age identity as well as for quality of life (31). The old people in this study have an active life style, an awareness of health-promoting factors and many social activities. Helping and supporting children and grandchildren were mentioned as important roles. For well being, the sense of being needed in terms of 'meaning something to somebody' is as significant as being active (32).

The respondents' perception of growing old was mainly positive. None gave an absolutely negative image of life in old age, but some emphasised feelings of insecurity, especially the prospect of deteriorating health and growing dependency. The respondents had adjusted to the reality of being old by adapting to changed conditions and loss of ability as they aged: they felt contented with life or were relatively contented with their lot (32, 33). They compared their own situation with that of others who were less fortunate and were aware of people of similar age who were worse off. Their greatest fear was of becoming helpless and completely dependent on others.

To feel well may include a subjective opinion of good oral health, which may be at odds with an objective assessment of oral health (34). In this study, there are few complaints about oral health. In analogy with self-assessment of general health as good or fairly good despite diagnosed ailments, functional disabilities and the need for medication, the subjective opinion of good oral health may be related to the respondents' low expectations of oral health in old age.

Numerous factors influenced the participants' opinions of their current oral health. They described the importance of being able to chew, of nutrition, appearance, fresh breath, well being, laughing, social contacts and not being self-conscious about their mouths when communicating with others. A feeling of general well being may well influence the perspective of oral health as a part of the quality of life.

In the elderly person, physical disability is a risk factor for deteriorating oral health (35). In this study, all the participants were mobile, with reasonable physical status for their age, and were keen to maintain their independence through good self-care. But they also expressed anxiety about becoming increasingly dependent on others. This anxiety can itself be a stressful element in daily life. Future deterioration of physical function may considerably increase the risk of oral problems, particularly as the respondents had natural teeth and had given priority to regular dental attendance and treatment during their earlier adult lives.

Many respondents emphasise the importance of respect for integrity and autonomy, emotional involvement in encounters with medical personnel.

During the participants' lifetime, economic growth and the development of the welfare state led to improved standards of living. This may have had an impact on their health perceptions and an awareness of the importance of the quality of life, even in old age. This 'fitness trend', to be alert and youthful in old age, may have made the participants eager to report a good life style and emphasise their independence, despite decreasing function. The participants are urban residents and may be more readily influenced by modern life-style trends than elderly rural residents. It is important to emphasise that the results in this study are relevant for the population sample, i.e. middle class, reasonably healthy, urban elderly.

With respect to ensuring reliability and validity, quantitative research is different from qualitative research. In qualitative research, the researcher is unable to capture the literal truth (36). The raw data in this study were collected in relatively unstructured form. The transcripts were independently assessed by two researchers, and to enhance the validity of analyses, numerous quotations from the original data are included in the text.

In a qualitative interview, the researcher may be regarded as a research instrument. Because the aim of phenomenological research is to search for meaning and not to collect facts, understanding is important. There is a delicate balance between the researcher's understanding, based on professional experience, and the participants' subjective experiences. The interviewer is a dental hygienist and her preunderstanding guides the interviews and her analysis of the data. Although none of the participants were the interviewer's own patients, awareness of her profession may also have influenced the participants' narratives.

Conclusion

The interviewees in this study were generally satisfied with their current oral health, and often referred to their parents' oral problems as deterrents. It was important for the interviewees to avoid the poor oral status of the elderly people they remembered from childhood. Although dental care was considered to be very expensive, it had been given priority over many other items in adult life. Memories of unfortunate childhood dental experiences and personal financial security were factors which influenced the respondents' attitudes to and perception of oral health and oral care.

Thus, for every individual, treatment and prevention should be set to an appropriate, realistic and individual level. Not only the elderly person's current life situation, but also the individual, cumulative experiences of a long lifetime should be acknowledged and taken into account. The dental hygienist should adapt information and education about oral self-care accordingly. This will help to ensure the provision of appropriate support, particularly in disabled patients.

Acknowledgements

This study has been supported financially by the Swedish Senior Citizens Society (Sveriges Pensionärsförbund), Stockholm, to whom the authors express their thanks. The authors are also very grateful to the respondents for participation. We are thankful to Joan Bevenius for revision of the manuscript.

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