Nursing personnel's views on oral health from a health promotion perspective: a grounded theory analysis

Gun Paulsson, Björn Söderfeldt, Tommy Nederfors and Bengt Fridlund

School of Social & Health Sciences, Halmstad University, and Oral Health Center, Central Hospital, Halmstad; Department of Oral Public Health, Malmö University, Malmö; and Department of Medicine and Care, Linköping University, Linköping; Sweden, and Hospital and Research Center, Riyad, Saudi Arabia

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The aim of this study was to develop a model for how nursing personnel view oral health in general and the oral health of the care receivers in particular, applying a health promotion perspective and using grounded theory analysis. Data were collected through interviews with 17 nursing personnel, selected by strategic sampling. Analysis of the transcribed interviews showed that there were four strategies, related to staff education, hospital resources, and leadership motivation. The strategies were grounded in data and emerged from the interaction between the two main categories: 'the valuation of the importance of oral health' and 'the behavior towards oral health maintenance'. They were characterized as the routine, theoretical, practical, and flexible strategies, with the latter considered ideal. As increased knowledge is one important part in enhancing the nursing personnel's ability to perform oral hygiene procedures, there is a need for education among nursing personnel, primarily among those using a routine strategy. ☐ *Elderly; grounded theory; health promotion; nursing personnel; oral health care*

Gun Paulsson, Halmstad University, Box 823, SE-301 85 Halmstad, Sweden. Tel: +46 85-167637, fax: +46 35-187580, e-mail: Gun.Paulsson@hos.hh.se

In the Western world there is a growing interest in the oral health status of the elderly, as their share of the population at present is constantly increasing (1, 2). The elderly now also retain their natural teeth to a greater extent (3, 4). They also have the same desire to retain their natural teeth as younger age groups (5). Oral health is important for the general health and well-being of old people (6–8). Poor oral health is also a factor contributing to nutritional deficiency in old and frail adults (9–11).

Maintenance of oral health is generally not a great problem among the elderly. For instance, persons more than 65 years old in Sweden utilize proportionally most dental care (3). The main problems are, however, often found among diseased and/or disabled elderly people, who are dependent on nursing personnel for their daily activities (6, 12–14). Oral health problems are frequently overshadowed by other needs, which are perceived to be more urgent and obvious by the nursing personnel, by the individuals themselves, and by their relatives (15). Furthermore, the oral cavity is an integrity zone, one of the body's most intimate areas, which the individuals guard (16). This makes the care receiver dependent on the views, knowledge, ambitions, and priorities of the personnel (17–20). Another aspect is the knowledge and views on oral health held by nurse managers, since they, to a great extent, influence the personnel who provide the oral care in practice (12, 20). In addition, nursing personnel appear to perceive oral health as the most difficult part of their work (18). Although registered nurses have been found to have more positive attitudes toward oral care assistance than the other nursing groups, they are seldom involved in the daily practice of oral hygiene care (18, 20).

Nowadays, health is regarded from a preventive (21) or a health promotion perspective (21), focusing on health rather than disease. Health promotion is not merely the absence of disease or bad health; it is based on a concept of positive health and hope (22). To promote oral health among the elderly, research and teaching personnel are needed who are competent in both dental disciplines and social and behavioral sciences (21–25). The aim of this study was therefore, by using a grounded theory analysis, to develop a model for how nursing personnel view oral health in general and the oral health of the care receivers in particular, applying a health promotion perspective.

Subjects and methods

Design and method description

Grounded theory stems from symbolic interactionism, which assumes that people in social interaction use language and gestures as symbols to express themselves. These symbols have both meaning and value for the actors and can be interpreted by others (26). This method (27) enables the researcher to discover what is going on in the social context through analysis of data based on statements, in this case made by nursing personnel (28). It is also useful for generating concepts or theories of the social

Table 1. Demographic characteristics of the informants ($n = 17$)

Characteristics	No. of informants
Sex	
Men	5
Women	12
Age, years	
21–30	2
31–40	5
41–50	5
51–60	5
Family status	
Single	4
Married	13
Having children	11
Having no children	6
Profession	
Reg. nurse	7
Staff nurse	8
Nursing auxiliary	2
Workplace	
Nursing home	4
Block of service flats	5
Home for old people	6
Home nursing	2
Hours of service	
100%	8
94%	1
86%	1
75%	6
53%	1
Location of workplace	
Urban	9
Rural	8
Age	
Younger	20–39 (A,C,F,G,K,Q)
Middle-aged	40–50 (B,E,H,I,N,O)
Older	>50 (D,J,L,M,P)
Strategies	
Routine: M,P	
Theoretical: J,D,L,G	
Practical: E,H,K,A,F	
Flexible: N,O,C,B,Q,I	

processes in human behavior (28). All parts of the investigation—data collection, data analysis, and theory formation—are parallel processes that include three levels: open, axial, and selective coding, where the researcher moves between inductive and deductive reasoning during the analysis, aiming to identify patterns and relationships between these patterns (29).

Informants and ethical considerations

The informants were strategically selected, also including a snowball selection, to capture as wide a range of meanings of social processes as possible (28, 29). They were contacted by telephone and informed about the aim of the study. All who were contacted declared themselves willing to participate. The following variables were considered in the selection: sex, age, family status, profession, work place, hours of service, and working area. Seventeen nursing personnel, aged 22–60 years, with a mean age of 43 years and living in the southwestern part of Sweden, participated in this study (Table 1). They were informed that they could, at any time, withdraw from the study and also that all data were to be treated confidentially. It was also emphasized that no one could be identified, as the results were analyzed at group level. An overall consent to perform this study was obtained from the managers at the respective work places. Permission was granted by the Research Ethics Committee of Lund University, Lund, Sweden.

Interview

An interview plan with a health promotion framework, containing introductory questions followed by additional ones, was chosen for the data collection (Table 2). The plan was established by a dental hygienist (first author) and a nurse teacher with methodological knowledge (last author). The specific interviews were all individually adjusted and provided the freedom to talk about the area of oral health as well as giving an opening for further questions, which could yield various other data (30). The interviews, which were carried out by the first author, were conducted in a quiet and undisturbed setting at the informant's workplace, tape-recorded, and subsequently transcribed by a secretary. The informants were first asked about their previous education and professional experience, to establish contact and to get a picture of their experience. The effective interview time was between 25 and 35 min but lasted about 1 h owing to introductory conversation to create a good climate of co-operation. Each transcribed interview comprised between 8 and 11 typewritten pages with double spacing, for a total of 163 pages. The data collection was terminated after 17 interviews. However, saturation was reached after 13 interviews and analyses, after which an additional 4 interviews were conducted to ensure the information provided by the nursing personnel.

Data analysis

As the grounded theory approach was used in this study, data were analyzed using the constant comparative method (29). Data collection and data analysis were carried out in parallel and started after the first interview. In the first step, open coding, the data were examined line by line, to identify descriptions of thoughts and ideas related to the interview questions. These codes, which were grouped into categories and subcategories, were formulated in words using the nursing personnel's own words—for example, 'having a holistic view on health,'

Table 2. Questions put to nursing personnel ($n = 17$) on motivation, knowledge, and resources in oral health

Questions on motivation
What is your view on having good oral health?
What is your view on good oral health for the care receivers?
What is your view on the possibility of increasing the care receivers' well-being through good oral health?
What is your view on the care receivers' attitude to receiving help with oral care?
Questions on knowledge
What is your view of the possibility of being able to influence your attitude within the area of oral and dental health through an educational program?
What is your view of your possibility of influencing the care receivers, within the area of oral and dental health, if you take part in an educational program?
Questions on resources
What is your view of your own resources for maintaining good oral health?
What is your view of your own resources for maintaining good oral health for the care receivers?
What is your view of your own resources for helping the care receivers who refuse to co-operate?
What is your view of your own resources for improving oral care?

'having knowledge about oral health,' 'treating the patient with respect,' and 'problems, such as lack of time.' In the next step, axial coding, connections, describing cause and effect, between categories and their subcategories, were sought. Examples of axial coding were 'When patients have a fungus infection or wounds in their mouth (circumstance) they refuse to eat (phenomenon). Then I tell the nurse responsible (strategy), who contacts the dentist or the dental hygienist' (consequence). The third step of the analysis, selective coding, consisted of bringing the categories together. At levels two and three the data were transferred to a more abstract level. This was a complicated process, in which the data were abstracted in two main categories by means of associations between the categories and the subcategories (Tables 3 and 4). These main categories recurred often in the data, linked different data together, and explained the variation in the data. This comprehensive pattern, grounded in the data, is the grounded theory. It resulted in a model that included four dimensions resting on two main categories (Fig. 1). One of the supervisors, a nurse-teacher by profession and a methodologist, was used as co-assessor in all steps.

Findings

The developing model

The nursing personnel's views on oral health were based on how they viewed oral health in general and the care receivers' oral health in particular. Oral health maintenance was found to be related to four different strategies used by the nursing personnel. These strategies were characterized as 'routine,' 'theoretical,' 'practical,' and 'flexible,' which together formed the model. The content of the analyses can be understood in the light of two main categories: 'the valuation of the importance of oral health' (Table 3) and 'the behavior towards oral health maintenance' (Table 4). The valuation of the importance of oral health, including knowledge and motivation, was affected by the nursing personnel's views of both their own and the care receivers' oral health and consisted of two kinds: fragmented thinking, such as 'Without teeth you look funny,' and holistic thinking, 'Yes, it is the same thing, you must clean your mouth as well as your body. If you have bad oral health I think it might have an influence on your

Table 3. The subcategories belonging to the main category 'The valuation of the importance of oral health'

1. To have a holistic view on health
2. That oral health is an integral part of nursing care
3. That the mouth is perceived as the integrity zone it actually is
4. To have good oral and dental status
5. To be able to eat
6. To have a clean mouth
7. To look good
8. That the care receivers feel good in their mouths
9. That the care receivers are able to eat
10. That the care receivers have clean mouths
11. To help the care receivers with their oral hygiene
12. To try to understand why the care receivers do not want help
13. To be aware of how the family members perceive oral health
14. To gain increased theoretical knowledge
15. To gain increased practical knowledge
16. To communicate increased knowledge to the care receivers
17. To reflect on oral health

Table 4. The subcategories belonging to the main category 'The behavior towards oral health maintenance'

1. To adapt oneself to the patient, coaxing
2. To protect the patient's integrity
3. To maintain the patient's autonomy
4. To respect the patient's wishes
5. To get the patient involved
6. To be aware of one's own resources
7. To be aware of the patient's resources
8. To document measures taken
9. To introduce oral care cards
10. To extend the collaboration with dental care, visiting activities
11. That illness constitutes a hindrance
12. That time constitutes a hindrance
13. That lack of financial resources constitutes a hindrance
14. Social reasons, social differences constitute a hindrance
15. Difficult patients constitute a hindrance
16. Reluctant patients constitute a hindrance
17. Cultural differences constitute a hindrance

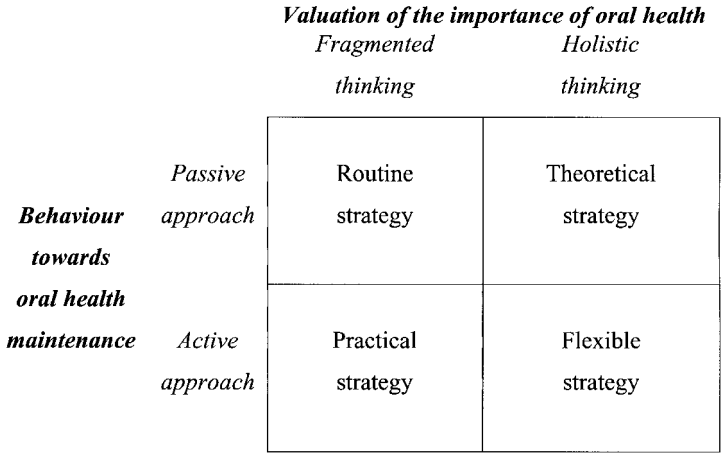

Fig. 1. The developing model of the nursing personnel's views on oral health, using grounded theory analysis.

general health; you simply do not feel well.' There were also two kinds of behavior with regard to oral health maintenance displayed by the nursing personnel. On the one hand, the nursing personnel showed a passive approach. This included persons who were not actively involved in the daily practice of oral hygiene or who had a lower motivation: 'We are doing the best we can. With some it is simply impossible.' On the other hand, the personnel were active and involved in the daily routines with regard to oral hygiene, based on their own and on the care receivers' qualifications and ability: 'Go away for a while and then try again. But that implies that those working in that way must have knowledge and be aware of what they are doing.'

Routine strategy

This strategy was used by the nursing personnel showing fragmented thinking and a passive approach to oral health. Their attitude was that 'we are doing the best we can and that is that.' They did not consider that they needed more education and knowledge but, rather, more practical information at their workplace. Their way of thinking about their own oral health is clearly illustrated by Mrs. M, an older nursing auxiliary: 'It feels better if I have brushed my teeth, it feels easier in some way and you feel better.' With regard to the care receivers, she stated: 'Most of the elderly do not want to brush their teeth. They think it is unnecessary.' The nursing personnel's attitude towards helping reluctant care receivers can be illustrated by her statement: 'Then we have those with natural teeth who refuse to open their mouth, and then I refuse too. I did it from the beginning, but I mean, it feels no good to force them to open their mouth only to brush their teeth. All of us who are working here, we want to have prosthetics when we get older. We don't want anybody to poke around in our mouths.' Lack of time as a reason for not brushing the care receivers' teeth was mentioned by Mrs. P, another older nursing auxiliary: 'They think that we are always so busy, and so it is, it is stressful, and perhaps they feel that we are under stress, but what can we do when there is not enough time?' About the possibilities to improve the maintenance of oral health, she said: 'I say, knowledge is not enough if they refuse to open their mouths; no matter how much knowledge you have, if they refuse to open their mouth, it does not matter.' She also saw differences with regard to generations, 'Then I think that this generation of elderly have not brushed their teeth so carefully. It is my generation and the coming generation that have that specific knowledge.' With regard to more knowledge and information, Mrs. M called for practical information and regular co-operation with the dental service: 'I want a dental hygienist to come here again; the last one had to leave due to lack of funding. Then she can look at their teeth at least twice a year. We want it to be as it was before.'

Theoretical strategy

This strategy comprised nursing personnel with a holistic thinking on health, including oral health. Mrs. J, an older nurse expressed: 'It has to do with the well-being. If your oral health is not good, it will have consequences for the whole body and also for the appearance and nutrition.' The nursing personnel were well educated and motivated but were passive insofar as they were seldom involved in the daily practice of oral hygiene. This is illustrated by Mrs. D, another older nurse: 'I am not involved in the practical oral care procedures for the care receivers, but I think it must be positive to get help with those things you cannot do by yourself. The resources used for maintaining good oral health for the care-receivers are, to a great extent, dependent on my personnel, how much they know about how to give good oral care.' She expressed that a verbalized form of oral care was given a high priority in theory: 'I think oral care has changed in a

positive way; it has been given a higher priority. I do not work practically now, but I can see that it works better today than some years ago.' Mrs. L, also an older nurse, expressed the wish to be updated on what happens in this area, practically as well as theoretically, both for the nurses themselves and to keep their personnel informed about what is happening. She said, 'An oral health education program that is addressed to me as a nurse. The effect will perhaps be that I will be able to pass on both practical and theoretical knowledge to my personnel. Then I will encourage the care receivers to improve their oral health.' Basic odontological knowledge to be incorporated in the nursing education, further training at the workplace, and standards for oral care and increased collaboration with the dental service were considered necessary for a successful result. Mr. G, a younger nurse, stated, 'We have that basic odontological knowledge so that we can give our care receivers the oral care we want; it is important to all of us.' With regard to further training, he said, 'We must have regular follow ups at our work places; you cannot just give people a message and have them think about it and then leave it; it does not work.' With regard to standards for oral care, he said, 'It is important to have a standard, but if we want it to work, follow up and regular co-operation with the dental service are important. I just think that contact is very important.'

Practical strategy

This strategy comprised nursing personnel who showed a fragmented way of thinking but an active approach to oral health. They thought of their own oral health above all from the viewpoint of appearance and looking fresh. Mrs. E, a middle-aged staff nurse, expressed, 'It is important to have a fresh look so you do not have that bad breath, and it is also more enjoyable to have natural teeth than prosthetics; it is more fun to brush natural teeth.' They showed motivation and considerable creativity with regard to practical procedures. Mrs. H, another middle-aged staff nurse, stated, 'You must be creative and artful; I mean, it depends on my own treatment how I will succeed, how patient and artful I am. It is not so easy to convince a care receiver with dementia that oral care is important.' The nursing personnel were well motivated and gave the impression of treating both co-operative and uncooperative care receivers with respect. They wanted to provide the best possible oral care to the patients and did not give up if difficulties arose at the first encounter. They tried to take into account the care receivers' attitudes towards the treatment and to develop possibilities that arose from those encounters to facilitate future treatments. The same staff nurse, Mrs. H, said, 'It's very different if they are co-operating or not, but you always have to show them respect, you cannot be too brusque. Then you have to try again later on.' The nurses expressed the wish to have more education, above all practical education, and increased collaboration with the dental service and standards for oral care, including documentation. Mr. K, a young staff nurse, said, 'Practical education: yes, both perhaps, but I think practical education is most important. It is something we are carrying out.' With regard to collaboration with the dental service, Mrs. F, another young staff nurse, said, 'Now we have a project going on here; there are two dental hygienists coming every Tuesday. It is very good. They tell us what we have done well and what we can do better.' On the question of standards, Mr. A, a young staff nurse, expressed the following: 'I think they would have got a better oral care if we had had a standard. Then you have to follow a particular plan, and you must do it more regularly.'

Flexible strategy

This strategy was used by the nursing personnel who had a holistic view and who took an active part in the daily routines, including oral health. They considered oral health a natural part of caring. Mrs. N, a middle-aged staff nurse, expressed this as follows: 'As well as washing, doing your hair or dressing, you have to brush your teeth; it is just a natural part of caring.' With regard to the care receivers' oral care, another middle-aged nurse, Mrs. O, said, 'It is important that the care receivers have a good oral status and oral health. You have to take care of their teeth in the same way as you do your own.' Being involved in the daily maintenance of oral care, they showed both understanding and flexibility. Mrs. O continued: 'Taking it easy and perhaps talking about other things just to reach them, but those you cannot talk with, who do not understand, it is difficult, but you always have to find other ways.' Mr. C, a young nurse, expressed this as, 'You can't use violence against them and force them; you must try other ways. You cannot just leave it.' These people thought that they had relatively good theoretical and practical knowledge within this area and considered specific knowledge as a resource or a possibility. Mr. Q, a young staff nurse, said, 'Resources are more that you have that specific knowledge, knowledge itself is a resource, so you have that specific knowledge to treat those care receivers how to do it in a correct way or in the best way possible.' Further, Mrs. B, a middle-aged staff nurse, said, 'I see the visiting dental service activities, which now have started, as an opportunity, an opportunity the care receivers have a right to. So we must keep the care receivers' rights in mind, also in discussions with their relatives.' These nurses expressed the need for basic odontological knowledge to be incorporated in all nursing education, including further education, as well as for increased collaboration with the dental service and standards for oral care. Mr. Q clarified this by saying, 'This is an important area, a very important area, which I think must be brought out; sometimes it is just neglected, it is not so acute and therefore given a lower priority.' With regard to practical knowledge, Mrs. I, another middle-aged staff nurse, said, 'Nowadays, many of the care receivers have both complicated prosthetics and natural teeth, which we have no idea about.' Concerning

standards for oral care, she stated, 'We have planned to co-ordinate these schemes strategically with other caring schemes.' Regular collaboration with the dental service was considered important also for the dental service team. This was expressed by Mr. Q as: 'On the one hand, the dental service team has to come here and see the reality of our situation. I think that it would give them a lot to think about.'

Discussion

Methodological considerations

Safety in the collection of information in qualitative studies is established by using the concepts of applicability, concordance, security, and accuracy (28). The applicability of the sample is mainly determined on the basis of informants and the stated research problem. To get as broad a picture as possible of how nursing personnel viewed oral health in general and the oral health of care receivers in particular, the informants were selected strategically. However, only five men were included in the study, which reflects the sex distribution within the health and medical services (31). The interview was chosen as the method of data collection to gain a deeper understanding of what factors influenced the nursing personnel to maintain oral health. Introductory questions, followed by additional ones, were chosen for the data collection.

Since the interviewer (G. Paulsson) is professionally active in hospital dental care, commanding both knowledge and experience of that which the informants describe, there existed a risk of preconceptions. If the interviewing had been performed by a less experienced person, the answers and statements may have been different and probably also longer. On the other hand, odontological details now were dealt with satisfactorily. To minimize these risks, she tried to approach the research problem in as impartial a manner as possible. She also made efforts to create a good climate of collaboration to encourage the informants to express their personal views. The process of analysis, moving back and forth in the data, from analyzing to interviewing (29), also confirmed concordance. One of the supervisors, commanding both professional and methodological knowledge, acted as co-assessor, which strengthened the concordance and security of the analysis. However, since the interviews were not transcribed by the interviewer herself, there existed a certain risk of misinterpretation of the text. To prevent such a risk, all transcribed interviews were checked by listening to the recorded interviews. To ensure conscientiousness and honesty from the start of the research process to the presentation of a clear and complete account, accuracy was needed right through all of the different steps. This was achieved by identifying statements from the informants while, at the same time, making a continuous comparison between data, codes, and categories throughout the analysis (29). The integrity of the informants has been respected by obtaining their consent to participate in the study, through the interviews themselves, through the storing of the study data, and through the presentation of the results.

Oral health considerations

In this paper an effort was made to develop a model of the resources at the disposal of the nursing personnel in providing oral health care by applying a health promotion perspective.

From a nursing perspective, Benner (32) described a coping strategy by applying a holistic point of view—that is, 'knowing how,' including a practical and a theory-based caring outlook. According to Benner (32), when capturing an event, there is a call for an active interest—that is, 'being in the situation.' Both optimism and confidence in the nursing personnel's capacity will increase the coping ability (32–35). How to cope with changes, 'how to take it, stands out as more important than the changes themselves (33, 34). From Antonovsky's sociological perspective (33), a general coping strategy is a plan for behavior that includes three major variables: rationality, flexibility, and foresightedness, where foresightedness is linked to rationality and flexibility. In relation to coping, Antonovsky's theoretical framework provides a frame within which analysis and intervention are possible—that is, the salutogenetic model, 'how to do' instead of 'how it is' (33, 34). In connection with coping, it is important to know how the personnel value an event, as this has consequences for the strategy chosen (32). This is in line with Lazarus & Folkman (35), who describe coping strategy, from a psychological perspective, to be rationally or empirically classified in accordance with function—that is, problem- or emotion-focused. Lack of time, lack of knowledge, a negative attitude to oral health, lack of prerequisites, such as means to oral hygienic assistance, and unwilling patients are examples of stress factors in maintaining oral health. In the suggested model four strategies—routine, theoretical, practical, and flexible strategies–used by the nursing personnel in maintaining oral health can be understood in the light of the interaction between two main variables, the valuation of the importance of oral health and the behavior in relation to oral health maintenance (Fig. 1).

The personnel using the routine strategy showed a fragmented way of thinking coupled with a passive approach, not regarding oral health as a problem. This strategy was mainly applied by older nursing auxiliaries with a lower level of medical education but long work experience. However, no men were found in this group. This is a reflection of the present staff situation within the Swedish health care, with men having a higher level of education and not occupying positions as nursing auxiliaries but as staff nurses (36). In the future this strategy might be less common, as nursing auxiliaries will be replaced by educated nursing personnel. In the meantime, it is hoped that the visiting dental service team (37) can

have a positive influence on the attitude of nursing auxiliaries through encouragement and practical collaboration.

The theoretical strategy was applied by male and female nurses of different age groups who embraced a holistic view of health. This view included oral health. They were well educated and had a managerial role in the team. In line with other studies, they regarded oral health in a wider context, including biological (38, 39), psychological (6, 13, 18, 19), and developmental (38) factors. Despite their passive approach to maintaining oral care, they played an important role, as their views on oral health had a strong influence on the personnel who provide the oral care in practice. Since oral health, so far, is seen as an important but neglected part of nursing (17–20), more efforts are needed to improve this area. At the same time, the nursing personnel in the present study emphasize that the motivation to manage oral health as a natural part of health has increased through the acquisition of more knowledge (32–35). Motivated nurse managers also have the possibility to influence their personnel to become aware of their own resources for oral care maintenance and to enable them to use their influence. Like the flexible strategy, these nurses stressed that, by using this positive attitude in the best manner possible, basic odontological knowledge can be incorporated in all nursing education together with standards for oral care and regular collaboration with the dental service team.

The practical strategy was utilized by male and female staff nurses of different age groups and with low-level education. These staff nurses showed a fragmented manner of thinking about health, including oral health. However, their approach was active and characterized by having the practical procedures in focus. In line with other studies, they showed the ambition and will, despite the care receivers' lack of co-operation, to carry out as good oral care as possible without violating the care receivers' integrity (16, 40). Through the recently started project with a visiting dental service team (37), they seemed to have become aware of their own resources and limits. This was in line with the findings of Mac Entee et al. (41), who consider that a more prominent role for dental personnel in the health care team probably offers the greatest likelihood of improving oral health through increased visibility, active participation, and regular evaluations of results. The staff nurses also made it clear that they themselves have the possibility to manage this task, to solve the existing problems (33, 34, 42). They emphasized the need for more education, above all practical education, and standards for oral care, to increase their knowledge and motivation to manage oral care.

Finally, the personnel using the flexible strategy, also called the ideal strategy comprising male and female nurses and staff nurses, had a holistic view and an active approach to oral health. They seemed to realize the importance of the relation between oral health and general health, including nutrition and diet, for improving care receivers' health and well-being in line with other studies (42, 43). They appeared to be motivated in the contact with the care-receivers, showing the will to show respect and to be attentive to the care receivers' needs and wishes and to protect their integrity and autonomy (40). They seemed to be aware of the oral cavity as the integrity zone, by Fiske (16) described as one of the body's most intimate areas, which the individual guards. They stated that oral care should be performed with feeling and respect and be given higher priority. These findings are in agreement with other studies (17–20). These personnel appeared to have the care receivers' needs in focus and displayed flexible strategies in oral care maintenance. They considered knowledge and being able to exert influence in this area a resource and a possibility. Through theoretical and practical knowledge, they seemed to have increased their knowledge and motivation to meet these needs and challenges, resulting in rational and flexible behavior in relation to oral health maintenance.

Conclusion and implications

Interviews were conducted with 17 Swedish nursing personnel on the basis of a grounded theory design. The aim was to develop a model for how nursing personnel viewed oral health in general and the oral health of care receivers in particular, applying a health promotion perspective. Four strategies, related to the different levels of staff education, hospital resources, and leadership motivation, were discernible in the light of the interaction between the two main categories, 'the valuation of the importance of oral health' and 'the behavior towards oral health maintenance.' These were the routine, theoretical, practical, and flexible strategies, of which the flexible strategy was considered the ideal one. A suggestion for further research is to follow up the collaboration with nursing personnel and the visiting dental service team to ascertain whether the establishment of national standards could lead to the strategies being changed. Another important but clinical task is to integrate this knowledge into the nursing education and to evaluate the clinical effects on care receivers of the nursing personnel's education.

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