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Dental appointment no-shows: why do some parents fail to take their children to the dentist?

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Background. Children are considerably dependent on their parents, not least in relation to achieving good oral health. There is a group of children who do not show up for dental treatments or only regular check-ups despite reminders from the dental health clinic. The cost of patients failing to come for scheduled appointments is also considered significant.

Aim. The aim of this study was to illuminate the main problem explaining why some parents fail to bring their children to the dental health clinics or to encourage and supervise them when they can take the responsibility themselves for dental treatments or only regular dental check-ups.

Design. In-depth interviews were carried out with 16 parents of children who regularly had failed to turn up for appointments at the dental health clinic. The verbatim transcribed interviews were analysed in line with the guidelines for grounded theory.

Results. A core category, 'being overloaded in daily life', emerged from the data and formed, together with three additional related categories, a conceptual model.

Conclusions. Our results indicate that these families experience an overload of demands related to their daily living and survival. Health-promoting efforts in the form of regular dental check-ups for their children have low priority for them.

Background

Caries is the single most common disease in childhood[1–4]. If caries develops early in life it is more likely that the individual will develop caries in the permanent teeth later in life[5]. Hence, caries has a lifelong impact on children's oral health status. Caries can also affect a child's growth in terms of lower weight and height due to difficulties in eating[5]. Many children living in multicultural, low socio-economic areas of Sweden show poor oral health. Several studies have demonstrated that immigrant children and children in socially deprived communities have significantly more caries than the average child[7–9]. Children from low-income families also have lower compliance with treatment[10]. In 3-year-old children from low-income, multicultural areas in Sweden, the prevalence of enamel caries was estimated to be 85%[11]. Studies also demonstrate that children with missed appointments had significantly higher mean DMFT at the age of 18 compared with other children of the same age group[12]. Children are considerably dependent on their parents, not least to achieve good oral health status[13]. One problem for dental health clinics is that some children, despite their major treatment needs, never shows up for a scheduled appointment.

In Sweden, dental health care is free of charge for children until they turn 19. They are called to their dental health clinic for a check-up appointment according to risk or need of treatment. There is also free choice of which dental health clinic to attend, including private dental health clinics. Still there are children who do not show up for dental treatments or only regular dental check-ups despite reminders for dental appointments from the dental health professionals to encourage the child/family to cooperate. It is also known that many children in that group have major dental treatments needs. In some closely populated areas in Gothenburg a bus with dental health professionals visits the schools for dental

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check-ups, but if any further dental treatment is needed the child has to go to the regular dental health clinic. Clinical practice shows that many children, who fail to attend the dental health clinics regularly, attend acute when suffering from toothache. The reasons for not attending the dental health clinics despite repeated opportunities to do so are still unclear. Except the children's suffering, it is also expensive for the clinics when patients fail to keep their scheduled appointments. Missed appointments represent a part of the dental care that is extremely cost inefficient. The estimated time for missed appointments on a yearly basis is equal to a full-time working dentist (average sized clinic). For a dental health clinic situated in one of the segregated areas of Gothenburg and with a responsibility for 7000 children, missed appointments represent 11% of the time booked and scheduled appointments. It should also be observed that these children do not show up for dental treatments or only regular dental check-ups despite great efforts from the dental clinics to get into contact with their parents. In some cases when the general health of the child is jeopardized due to dental problems the social services are notified.

Aim

The aim of the present study was to illuminate the main problem explaining why some parents either fail to come to the dental health clinics with their children or fail to encourage or only have an influence on their attendance at regular dental check-ups and dental treatments.

Design

Grounded theory

The research question decides what kind of research method should be used. Grounded theory (GT) is suitable when studying participants' main concern or problem, which results in generating concepts that explain basic social processes[14]. GT is an inductive method aiming at generating concepts, models or theories rather than testing a hypothesis based on existing theories. Originally, GT was described by Glaser and Strauss[15], and advanced by Strauss and Corbin[16] and by Charmaz[17]. In this study, Strauss and Corbin's mode of GT has been especially helpful in analysing data. All the above-mentioned authors' writings, however, have been valuable as guidelines for conducting the study.

The basic principles of GT in this study included theoretical sampling and hierarchical analysis, constant comparisons, theoretical sensitivity and saturation. Constant comparison included comparisons of raw data and emerging categories during the entire analysis process. Theoretical sampling was used to reach saturation and was guided by the emerging categories rather than being used to increase the sample size[17]. In the present study, theoretical sampling also included that already collected data were re-coded to elaborate emerging categories. Saturation, although a somewhat 'elastic' concept, was considered to be reached when new interviews did not add information to the emerging categories, i.e. when new data fit into the categories already devised[16]. Theoretical sensitivity refers to the researcher's reflexive way of developing research questions and doing analysis.

Criteria for judging the rigour of a GT study include fit, work and relevance, modifiability, parsimony and scope[18]. Fit means that the core category is related to the salient social problem under study. A core category is said to fit when it is relevant and works and integrates all other concepts, making the emerging model/theory dense, saturated and practically applicable. One assumption in qualitative research is that data are generated in interaction between researcher and informant[16,17]. Therefore, the relationships between these two subjects were reflected on in a critical way[19]. Reflexivity includes the idea that the researcher identified and reflected on preconceptions brought into the study. Multiple researchers might strengthen the design of the study by supplementing and contesting each others' statements[20].

Study group and procedure

The participants in the study group were all from the Gothenburg area of western Sweden. They formed a group of 16 parents (aged 35–63 years, nine mothers and seven fathers)

whose children (aged 7–18 years, 6 children under 12 years, mean age 11.6 years) failed to come to the dental health clinics for dental treatments or only regular dental check-ups. The participants, native Swedes as well as parents born abroad, were mothers or fathers of children up to 18 years of age (most children were between 12 and 16 years). Six parents were single parents (one single father) and eight of the participants were employed on part- or full-time. According to GT, a strategic sampling of participants is recommended to maximize the variations of experiences in the studied group[15]. The participants were identified by referrals of their children to the specialist clinic for major oral treatment needs. The first contact with the presumptive participants was an informational letter from the research group asking if they were willing to participate in the study. If they were interested in participating, they were requested to call the interviewer (U.H.) to schedule an appointment and place for an interview. Although 26 information letters were sent out, no one called the interviewer back to schedule an interview. Then, the interviewer called 20 new presumptive participants, selected in the same manner, and informed about the study orally. Almost all presumptive participants were interested in the study and were willing to schedule an appointment for interview at their nearest dental health clinic. Based on an agreement with the presumptive participants, the interviewer called them the day before the interview to remind about the interview. In addition, the interviewer called the participants the same day the interview was scheduled to once again remind them. Despite this, only a small number of presumptive participants (three persons) showed up for an interview at the dental health clinic. The interviewer called the participants who did not show up at the scheduled time for interview to find out their interest to participate in the study and if that was the case, a new time for an interview was scheduled but none of the participants showed up. After that the sampling strategy was changed. The interviewer instead called new presumptive participants (19 persons), selected among children referred to specialist clinic for major oral treatments needs, informed their parents about the study and asked if they wanted to take part in a tape recorded telephone interview. Almost all of the presumptive participants were willing to participate. In total, 16 parents were interviewed. All interviews except one were made in Swedish. The interviewer (U.H.) was not known to the participants in advance and did not participate in their dental treatments.

Qualitative interviews

An open-ended, taped interview, lasting up to 60 min, was conducted in a conversational style with each participant. The interviews were carried out either on the telephone ($n = 13$) or at the participants' nearest dental health clinic ($n = 3$). The interview was conducted by U.H. (a sociologist with a DrPH in public health science and an experienced grounded theorist) in a quiet room at the dental health clinic or as a telephone interview from a room at the university. An interview guide was used and concerned the participants' thoughts and feeling on themes such as the child's oral health and regular dental check-ups at the dental health clinic, the significance of dentition to the parent, the meaning of oral health to the parent, the daily life of the families and the parent's history of dental treatments and regular dental check-ups. Based on these themes, the interviewer asked relevant follow-up and probing questions. During the interview, the participants had the opportunity to raise questions of relevance to them. Open-ended interviews require active and engaged involvement of both researcher and participant in response, clarification and elaboration of communication. Data were created through this process and the quality of data was influenced by both the participant and the interviewer[21]. Data collection and analysis were conducted simultaneously and continued until new interviews did not provide additional information, i.e. until saturation was reached.

Analysis

The transcribed interviews were analysed using the guidelines for GT. Regardless of the technical details, GT offers a set of flexible

strategies rather than rigid prescriptions[17]. Raw data were coded as they were collected step by step, and re-coded at a later more abstract level. With the purpose of making an overview analysis of the research question, theoretical memos and ideas were written to develop a theoretical sensitivity. According to Glaser[18], as few categories as possible should be generated without losing too many nuances and variations in the empirical data. In the initial open coding process, the researcher read the interview transcripts line by line or only segment by segment and posed questions to the data, e.g. 'what is expressed here?' and 'what does this mean?' The researcher thereby identified and labelled substantive codes/concepts indicating the meaning in the data. Emerging codes with similar content were grouped together into more abstract categories, which were labelled in a more abstract way. The next step included a systematic exploration of connections and links between categories (axial coding). In a selective coding process, each category was saturated with information and a core category was identified. The core category described, 'what it was all about'. According to the guidelines, all categories were included in the final model and were connected to the core category in a reasonable way. During the entire analysis process, constant comparisons were made between different parts of the data, between different subjects and between different categories, to capture similarities and differences in the data and to secure that emerging categories were grounded in the data. During the entire process memos were written down in order to keep track of the result. In summary, in this hierarchical coding process, interview transcripts are coded and the meaning of the raw data is illuminated and broken down into codes. Codes with similar meaning form more abstract categories and conceptual relationships between these categories are sought and grounded (verified) in data.

Ethical aspects

The study design was supported by the Research Ethical Committee at the University of Göteborg. Requirements concerning informed consent and confidentiality were promised and secured.

Results

A conceptual model of 'being overloaded in daily life'

In the analysis of data, four categories emerged forming a preliminary conceptual model which illuminates the main problem why parents fail to visit the dental health clinics with their children or to encourage and supervise them when they could take the responsibility themselves. The core category, 'being overloaded in everyday life', explains this problem and gives a deeper understanding from the perspective of parents. The related categories indicate that the parents were 'lacking dental health care traditions', and that they felt 'lack of trust in the dental health care system'. Furthermore, the model describes that the parents felt a 'lack of parental confidence' which also included that the parents wanted the dental healthcare professionals to take over the parental responsibility in the dental treatment situation. This process of being overloaded in everyday life, illustrated in Fig. 1, leads to low priority for the child's dental healthcare treatments or only regular dental check-ups.

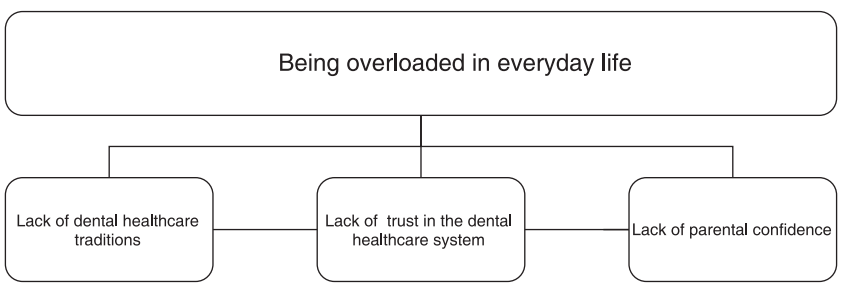

Fig. 1. A grounded theory model trying to describe why some parents do not take their children to the dental health clinics.

Being overloaded in everyday life

Participants experienced overloading in their everyday life. They had difficulties in managing their life situation and felt invaded by things that happened around them unexpectedly. Having a job outside home made it difficult or impossible for them to manage any extra tasks, such as dental health clinic appointments, during the day. After a day at work they often felt tired and overwhelmed and had a need for recovery and relaxation. Living alone with responsibility for the children was also experienced as demanding and overwhelming by single parents. Life was all about surviving the present day for some participants and some of the participants had stopped working or interrupted their studies because of a feeling of being invaded by the situation of being a single parent. According to the interviews, calling the dental health clinics to schedule a time for dental treatment or only dental check-ups for their child had low priority. Similarly, low priority was given to remembering making a phone call to cancel dental appointments if something happened that made it impossible to go to the dental health clinic that day. In addition, because of a burdensome life situation some parents gave low priority in making a phone call for scheduling a dental appointment when their children had toothache.

> Well, a person has a lot more to think about than ... just sitting around making a bunch of phone calls, so much is going on in my life, probably in yours too, you must have kids, and schools to deal with, and parent's meetings and work, and you have to make time for the cleaning and the laundry and the ironing and ... shopping. And you know how it is, your whole life just goes on like that. And ... as I said, things get in the way, and you forget about it and then remember it, right on Monday I'm going to call ... give a ring and then ... and then you forget it again and so forth and so on. That's how it is.

Lack of dental healthcare traditions

Participants confirmed that they did not go to the dental health clinics for dental treatments or only regular dental check-ups themselves. The reasons were mainly that they could not afford it or that they had to choose to spend their money on other things. Another reason was, according to the participants, that their oral health status had low priority for them. Some of the parents in the study did not have the tradition of going to the dental health clinic except when they had toothaches or other oral health problems. These circumstances could be one explanation of them giving low priority to their oral health. According to the data, participants were not concerned or worried about the fact that they neglected their own oral health. Some participants told they had sought help at emergency dental health clinic when they suffered from bad toothache and there the dentist had, according to their wish, pulled the teeth that hurt them. Some parents had poor oral health. Some wore dentures or missed all teeth and did not wear dentures and felt ashamed of their own oral situation. In summary the families in the study did not have a tradition of regularly caring for their oral health.

> I haven't been to the dentist for the last 15 years. Nope. There's always. oh, well, I have been for emergency appointments to pull teeth, of course. And I guess I had one last fall ... yes, I had one then, too. And I think I was supposed to go back for a check-up but I haven't because ... well because I can't afford it and because ... I just can't be bothered like about going to the dentist you know.

Lack of trust in the dental healthcare system

Participants described how they felt disrespectfully treated by dental staff. Participants described how they had missed appointments with their children at the dental health clinic and had to pay a bill, which was sent to them for the missed appointment. Most participants in the present study had problems to afford to pay the bill owing to restricted or poor private finances. They argued in the interviews that the amount of money they were expected to pay was too high for one single missed dental appointment.

> No, the thing is ... I just think like if I had an appointment. I had a last appointment. This was a few years ago. And ... I came five minutes late and so they say that no, now ... the dentist's left for the day. Oh, but, well, I said ... I was 5 minutes late. Aha, but the dentist has packed up his things and gone home.

They also felt that the dental staff had limited understanding or empathy for their overloaded everyday life situation, which made it hard or impossible to come to the scheduled appointment. When analysing the data, it became obvious that the parents thought that their children needed to see the dentist more often than they were supposed to. At least two dental check-ups per year was a common wish according to the interviews, instead of one per year, which they assumed was the present standard. This indicates that parents are aware of their children's need for regular dental check-ups, but their stressful everyday situation constitutes an obstacle for practicing this.

Lack of parental confidence

In the interviews parents described that it was difficult to persuade their children to go to their dental appointments. They said that the children feared dental treatments and that they did not cooperate at all with the parents. Parents perceived that they had done their utmost in trying to convince their children to see the dental health professionals, but if the child still refused to go to the dental health clinic parents had problems to handle the situation. Many of the children referred to in the interviews were supposed to go by themselves to the dental health clinic, because the parents could not find time or possibility to accompany their child, e.g. due to working hours or sick children at home. According to the interviews it was common that the children forgot the dental appointment or did not go owing to dental fear or anxiety. When the children missed a dental appointment the parents felt overwhelmed and did not know what to do. Some of the parents said that their children had screamed when they came into the dental health clinic and that an examination or treatment then became impossible. This situation was also perceived as overwhelming by the parents and they had no strategies to handle the situation. When the child came to the dental health clinic but was unwilling to go through with the dental examination or dental treatment, the parents found it hard to manage or control the situation. They thought that the dental healthcare professionals did not use their authority by requesting or instructing the child to open his/her mouth or to cooperate adequately. When the child was reluctant to cooperate, the parents felt unable to act and powerless in the situation. They also perceived the dental health professionals as being cautious, polite and vague towards the child. According to parents in the study, they wished that the dental healthcare professionals would be firm with the child and tell him/her what to do and what was expected from the child. In other words, the parents wanted the dental healthcare professionals to take over the parental responsibility.

> And I kind of coax her ... and keep at it. And we were down by the dentist's office although she had said so, but there she ... we had to turn around and go home, you know she was just screaming. So I just don't know like ... you're not allowed to hit your kids either to make them go to the dentist like. But now. And it doesn't matter how much I talk to her about it ... we just end up not going in, that's all. And it's happened several times.

Discussion

This study generated a conceptual model, showing a process of 'being overloaded in everyday life', contributing to the explaining of why parents fail to take their children to the dental health clinic for dental treatments or only regular dental check-ups or to encourage and supervise them when they can take responsibility themselves. The parents themselves may lack a tradition of dental health care owing to restricted or poor finances or low interest in prioritizing their oral health by other reasons which is in line with other studies[22]. Parents in the study had difficulties

in managing their daily lives; they often felt invaded by things that happened to them unexpectedly. The core category shows how the process ending up in failing to bring the child to the dental health clinics for dental treatment or only regular dental check-up could be attributable to the parents feeling overloaded in everyday life and therefore giving low priority to their child's oral health despite awareness of urgent needs. This is reflected in the difficulties to reach participants. The fact that the families in the present study felt overloading in their everyday life could have affected that most of the participants preferred to take part in a telephone interview instead of taking time to go to the scheduled appointment for a face-to-face interview. The fact that the parents were aware of their children's major oral treatment needs could have been motivating in participating in the study.

Parents themselves may lack a tradition of oral health care according to the interviews. Many of the participants told that they had not been to a dental health clinic for dental treatments for more than 15 years. According to the parents, they had low interest in their own dental status as there were too many other things happening in their lives. Some parents also had a tradition of only going to the dental health clinic when they had acute oral problems. This was normative routine also for their children. It has been shown that low socioeconomic status combined with dental anxiety is a predictor for poorer self-reported oral health status[23]. Hjern *et al.*[24] suggested that low educational level, having poor private finances and being born outside Sweden are associated with higher odds of oral health problems. In the present study group it was also common not to have been treated by any dental health professional during the last 24 months. These determinants were the same for the children of these parents[24]. In the present study approximately half of the parents were born in Sweden and most of them lived in restricted socioeconomic circumstances, and they seemed to have the same situation as the group that was born outside Sweden regarding dental treatments and oral health, which was also suggested by Hjern *et al.*[24].

The parent's difficulties in managing the child's unwillingness to attend the dental healthcare clinic were an important finding. As a result, even if the parents had the wish to take their child to the dental health clinic they failed to do so owing to the child's unwillingness to have dental care. The parents had restricted or no strategies for handling the child's unwillingness and so they failed to come to the dental health clinic. According to the interviews the parents often expected their children (even the younger children) to go to their dental appointments themselves since the parents could not find time in their subjectively overloaded daily life to accompany their children to the dental health clinic. Failing to bring the child to the dental health clinics can be attributed to a lack of confidence in the treatment or a lack of concern over the long-term health consequences of one's behaviour[25]. Younger children and children in preadolescence differ significantly from adults because they do not self-regulate their health promoting behaviour or their health care[26]. It is thus important to emphasize parents' support and responsibility in relation to their children's dental health care[27,28].

What this paper adds

- Parents who fail to take their children to the dental health clinics for dental treatments or only regular dental check-ups or to encourage and supervise their children when they can take responsibility themselves feel overloaded in everyday life and, therefore, give their children's oral health low priority.
- The parents also give low priority to their own oral health, because of being overloaded in everyday life and also because of restricted or poor private finances.

Why this paper is important to paediatric dentists

- More studies are suggested to be carried out in order to collect more data which hopefully can lead to suggestions for intervention aimed at reducing the frequency of missed appointments among this group.

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