Perception of Dental Illness Among Persons Receiving Public Assistance in Montreal

Christophe Bedos, DDS, PhD, Jean-Marc Brodeur, DDS, PhD, Alissa Levine, PhD, Lucie Richard, PhD, Laurence Boucheron, MSc, and Witnisse Mereus, MSc

Objectives. We examined rationales for behaviors related to dental care among persons receiving public assistance in Montreal, Quebec.

Methods. Fifty-seven persons receiving public assistance participated in 8 focus groups conducted in 2002. Sessions were recorded on audiotape and transcribed; analyses included debriefing sessions and coding and interpreting transcribed data.

Results. In the absence of dental pain and any visible cavity, persons receiving public assistance believed they were free of dental illness. However, they knew that dental pain signals a pathological process that progressively leads to tooth decay and, therefore, should be treated by a dentist. However, when in pain, despite recognizing that they needed professional treatment, they preferred to wait and suffer because of a fear of painful dental treatments and a reluctance to undertake certain procedures.

Conclusions. Persons receiving public assistance have perceptions about dental health and illness that prevent them from receiving early treatment for tooth decay, which may lead to disagreements with dentists when planning dental treatments. (*Am J Public Health.* 2005;95:1340–1344. doi:10.2105/AJPH.2004.045955)

Although the oral health of Canadian and American populations has improved overall during the past 3 decades, oral diseases remain a significant problem in our societies. Indeed, there are profound socioeconomic disparities, and the burden of oral diseases is high among underprivileged people.[1] In the province of Quebec, Canada, approximately 25% of adults aged 35 to 44 years who earned less than $25 000 in 1993 were already edentulous.[2] In Harlem (New York City), Zabos[3] found teeth and gum problems to be the main health complaints made by adults. Additionally, Vargas[4] reported that American adults of low socioeconomic status were more likely to report tooth pain and were more likely to endure their pain without the benefit of dental care.

Despite a high occurrence of tooth pain, and despite public dental coverage, Medicaid recipients rarely consult a dentist.[1,5] Use of dental services is also very low among Quebecois receiving public assistance.[6,7] Yet, in contrast to the rest of the Quebecois adult population, persons receiving public assistance benefit from public dental insurance that covers diagnostic, preventive (prophylactic), and routine restorative services and emergency visits, extractions, and dentures; however, root canal therapies and fixed prostheses are excluded.[6] Although researchers have recently identified different impediments to accessing dental care by persons receiving public assistance—in particular, difficult relationships with dentists—we have little information on what motivates persons receiving public assistance to seek dental care.[8,9] Thus, we do not know how they interpret symptoms, how they differentiate the normal from the pathological, and how they evaluate their need for treatment.

Researchers have shown that illness and behavior are mediated by various factors, such as culture and education, and that symptoms are not necessarily interpreted by individuals as an indicator of illness.[10–12] In the 1950s, Koos observed that back pain was not considered symptomatic of any specific disorder among lower-class women; rather, they viewed it as a natural and unavoidable condition.[13] Furthermore, researchers have shown that working-class adults value their capacity to endure symptoms, an ability perceived to be an indicator of strength or good health.[14–18] Thus, we hypothesized that Medicaid recipients may not consider tooth pain as an indicator of need for professional treatment and that this capacity to endure tooth pain may fill them with a sense of pride or the belief that they are healthy.

To better understand why Medicaid recipients in the United States and persons receiving public assistance in Quebec rarely seek dental care, it was important to determine how they define oral health and illness and how they interpret oral symptoms. Therefore, the objective of our study was to understand the rationale behind the behavior of persons receiving public assistance when tooth pain occurs and to identify their indicators of dental health and illness.

METHODS

Research Design

We used an in-depth, qualitative approach to obtain a better understanding of the perceptions of persons receiving public assistance. We conducted focus group interviews, because this technique facilitates discussion and allowed us to investigate complex behaviors and the "motivations that underlie those behaviors."[19]

Sample Recruitment

The participants of the focus group had to be persons receiving public assistance who were (1) not recent immigrants, spouses of students, or former students not yet employed; (2) Francophones; and (3) aged 20 to 55 years. During the recruitment process, we relied on key informants from a disadvantaged neighborhood in Montreal. These informants, who lived in the neighborhood and volunteered in local community centers,

produced a list of eligible persons from which we recruited the sample.

Interview Procedure

To enhance the participants' compatibility,[20] the focus groups were homogeneous in terms of gender and age. Discussions started after each participant had signed a consent form approved by the Université de Montréal's institutional review board. The discussion, which was conducted in French, lasted about 2 hours and was audiotaped and transcribed. At the end of the session, participants were asked to fill out a short questionnaire about sociodemographic variables.

The focus groups were conducted by a professional moderator, and an assistant observed the groups' dynamics. The moderator had a list of themes for discussion, including definition of dental health and illness, interpretation of oral symptoms, decision to seek care, and perception of the dentist and professional dental treatments. To stimulate the discussion, the moderator used 3 hypothetical scenarios[21] that were developed by the research team in accordance with data from a previous study.[9] These scenarios addressed research themes by describing 3 individuals who had different dental statuses and dental care–related behaviors. The moderator asked participants to answer questions such as, "What do you think of this individual's dental status?" and "What should one do in such a situation?" He also invited them to describe their own experiences and encouraged discussion until the themes were fully expanded upon.

Data Analysis

Eight focus groups (n=57 individuals) were conducted in a community center between February and May in 2002 (Table 1). The analyses included debriefing the sessions, coding the transcripts, and interpreting the data. The debriefing was conducted after each session to evaluate the data collection process, review the findings, identify new hypotheses, and prepare for the next session.

To code the transcripts, we started with a short list of codes, on the basis of our research themes, and we created new codes throughout the coding process. This allowed us to label and retrieve the themes that were discussed during the focus group sessions. Two researchers conducted a detailed analysis of the retrieved themes. The interviews were summarized and indexed by theme and subtheme and, in accordance with Miles,[21] were organized in a table that represented the participants' model of decision to seek dental care. This analytic process was recursive and interactive, because the other researchers systematically checked and validated the interpretations.

TABLE 1—Demographics of Focus Group Participants (N = 57)

	No. of Participants
Age, y	
20–35	23
36–55	34
Gender	
Female	30
Male	27
Family status[a]	
One of a couple	15
Single	41
Education level[a]	
< High school	25
≥ High school	31
Dental status	
Dentate (fully or partially)	47
Edentulous	10

[a]For some variables, the total is less than 57 owing to nonresponse.

RESULTS

Table 2 shows the prevailing model for decisions to seek dental care among the participants, with symptoms as the starting point for interpretation and action. In the following paragraphs, we will show that the pathology was defined in terms of pain versus lack of pain, and the pain itself was differentiated as bearable and unbearable.

Absence of Symptoms

According to the participants, absence of symptoms means absence of illness, which may conflict with a dentist's diagnosis. For example, participants said that if a dentist suggests treating a painless tooth (in the absence of any other visible symptom), which is contradictory to the participant's own pain-based evaluation, they would judge the reasons for the provider's treatment plan as unfounded. In other words, they would raise doubts about the dentist's honesty and, therefore, feel justified in refusing the treatment plan.

> *In my opinion, dentists nowadays keep on treating and treating and treating so they can make money and more money and make the person come back* [for additional treatments].

Thus, participants relied on their own ability to diagnose a problem, and they tended to distrust the dentist. They believed they were able to discern whether they had a dental problem or not, and they thought that it was legitimate to challenge the dentist's point of view. In these circumstances, the women reported they tended to skip their next appointment; the men tended to look for a second opinion. Thus, in the absence of symptoms, the majority of the participants did not consult a dentist, because they did not perceive a need for professional dental treatment.

Aesthetic considerations were an important concern, because absence of symptoms

TABLE 2—Perception of Tooth Pain and Need to Seek Dental Care Among Persons Receiving Public Assistance

	No Symptom	Bearable Pain	Unbearable Pain
Interpretation	Absence of illness	Illness	Illness
Perceived need for treatment	No need for treatment (possible need for professional cleaning)	Need for professional treatment	Need for professional treatment
Decision to seek dental care	No decision to seek care (except for dental cleaning)	No decision to seek care (adaptation to pain)	Decision to seek care (adaptation to pain failed)

means absence of illness, and clean, beautiful teeth usually means healthy teeth. Some participants, especially young women, said preventive visits were useful for cleaning teeth and preventing illness. They considered an asymptomatic visit to be a hygienic measure that complemented tooth brushing, because the professional cleaning eliminated debris and deposits that could not otherwise be manually removed. However, only a few of these women actually visited the dentist when they were not in pain.

For me, tartar . . . I don't know if it makes cavities, but I do know that I often have problems. I brush my teeth and all, but I can't always remove it, the tartar from the gums. I can't remove it, so I have to go to the dentist for a cleaning.

Occurrence of Symptoms: Bearable Pain

Pain was the most common and the most important symptom reported by participants—it signaled a dental problem that needed to be treated. Pain was usually associated with a biological lesion that the participants described in lay (cavity, rotten tooth) or dental terms (tooth decay).

Being healthy is . . . having clean teeth, and when they hurt, you have to go and consult. If they hurt, it's not by chance, it's because there's a problem.

When I eat sugar, because I have cavities, it hurts a bit.

There was consensus that the pain and gravity of the situation might worsen over time: on the basis of their experiences, most said that the tooth decay problem will not resolve itself and will cause greater pain when the decay reaches the "nerve." In addition to pain, other symptoms were recognized as reasons for concern: a painless tooth was identified as problematic after a filling breaks or when it shows a visible cavity. In these cases, participants said that a dental visit was necessary and that delaying the visit might compromise the tooth, because instead of filling the cavity, the dentist might have to extract the tooth.

It was more than a year ago that I lost my filling . . . the whole filling went. At that point, it was still clean. . . . it [could have been] *cleaned and then refilled. But then . . . if it hits the nerve, there is nothing left to fill. It's starting to hurt . . . When you go there and it's too late—when your tooth is down to the nerve and they can't do anything with it any more—well, that means you waited too long . . .*

Participants argued that some symptoms do not necessarily require a dental visit. For example, sore or bleeding gums can be treated with over-the-counter medication. But for the most part, participants agreed that they should consult a dentist at the onset of pain, because tooth decay is a pathological process that progressively leads to tooth loss. Despite their perceived need to consult the dentist, and despite the prospect of losing teeth, participants said that they usually tried to adapt to the pain and avoid consulting a dentist.

. . . you put up with it until it really hurts and you can't stand it any more.

Some participants, especially the men, hoped that the pathological process would reach its ultimate stage—complete decay and loss of the tooth. This would allow them to avoid certain treatments, such as a root canal, which is not covered by the public insurance program, and thus avoid future dental consultations.

Participant: *"I put up with it for about 3 or 4 months . . ."*
Moderator: *"What were you thinking?"*
Participant: *"Well, I took some Motrin to get rid of the pain, so I wouldn't feel it anymore."*
Moderator: *"You were thinking that it would go away?"*
Participant: *"Well, it will go away,* [the tooth] *will decay, it will fall out."*

Many participants sought alternative relief through over-the-counter analgesics. Other remedies included special tooth brushing techniques (warm water, salted water, toothpaste for sensitive teeth, or teething products) and various folk remedies (cloves, oils, and even alcohol to "get the tooth that is hurting drunk" or the individual drunk so the pain will not register). In certain cases, the pain relief was very short-lived—a few hours—and in other cases, it lasted for weeks or months. Thus, the delay before consulting the dentist depended on the frequency of the pain and the participants' ability to endure it. Consequently, the delay was as much as several months and possibly years.

Participant: *". . . it can take me up to a year before I decide to go to the dentist's."*
Moderator: *"And what do you do while you're waiting?"*
Participant: *"I put up with it* [laugh]. *I'd just as soon have the pain as go to see a dentist."*

Occurrence of Symptoms: Unbearable Pain

The participants consulted the dentist once the pain became unbearable. Pain was considered unbearable when external measures, such as medication, failed and when minimal functioning was rendered impossible (inability to eat, sleep, or get along with relatives).

If you can take 2 aspirins and it gets a bit better, you know that it'll be OK, it's not too bad. But if it's a really bad pain . . . you can't sleep . . . you can't eat, you can't do anything for 24 hours. That's when it's a serious problem.

Because the participants were persons receiving public assistance and, as such, did not have regular employment, no one associated unbearable pain with an interruption of work activities. Thus, pain had limited social repercussions and was usually restricted to the individual and his/her immediate circle. With the exception of a few male participants, high tolerance of pain was not described as a sign of strength or vitality. Although most participants did not dramatize their pain experiences, they usually viewed themselves as illogical for waiting as long as they did before consulting a dentist. Submission to prolonged pain was considered to be a consequence not of bravery but of fear of the dentist.

It scares me, so for me to go and see a dentist . . . it really needs to hurt so much that I can't handle it, and there's nothing else [that can] *be done!*

When I have a toothache, my children tell me, "Mom, go to the dentist." I'm not about to tell my children that I'm scared to go to the dentist. I tell them, "Yeah, yeah, I'll go tomorrow." I'll take some Tylenol . . . I don't tell them I'm scared of the dentist . . . they don't need to know that . . .

It is important to compare the participants' definition of unbearable pain with another type of pain that was frequently mentioned during the focus groups—pain associated with dental treatment. The tooth pain participants endured on their own was less frightening and less invasive than the pain they endured during treatment. Women more clearly identified their fear than men did. For example,

many women were terrified by the anesthetic injection, the specific purpose of which is to prevent pain during the treatment. Participants said that past traumatic experiences account for present-day apprehensions. One participant said getting one's inner cheek pinched by the cardboard insert before an X-ray was a traumatizing experience. Another evokes the risk for biting one's tongue while temporarily anesthetized, because the tongue will throb once the anesthetic has worn off. As a result, some of the participants, both females and males, said they would prefer to be put under general anesthesia for even minor dental interventions.

> *If tomorrow morning I had a dentist who told me, "We're going to put you to sleep, we're going to take care of your mouth" . . . then let's go! I'll be there right away. Because I wouldn't hear anything, I'd be asleep.*

Thus, pain during treatment was another kind of unbearable pain that was associated with the participants' negative attitudes toward dentists. When deciding whether to consult a dentist, the participants weighed the relative discomfort of toothache pain versus treatment-related pain.

DISCUSSION

To the best of our knowledge, this study is the first to describe a dental nosological model of low-income people. However, it reflects the perceptions and the experiences of a fraction of this population—francophone persons receiving long-term public assistance in Montreal. Thus, our observations may not be applicable to individuals from other social, ethnic, or geographical backgrounds. In particular, the nosological model we described may not apply to Medicaid recipients in the United States, who often have limited dental care benefits.[22] It also may not apply to Francophones who are not receiving public assistance, especially those from the middle and upper classes who consult a dentist preventively[23] and who do not wait when a dental problem occurs.[24] Finally, we cannot exclude the possibility that some participants came from other social or geographical milieus, because the recruitment process relied on key informants. However, we found our sample to be homogenous because of the consistency of the findings throughout the sessions and the limited variations in the responses.

The lay nosological model relies on the presence or absence of symptoms: in the absence of dental pain and any visible cavity, the persons receiving public assistance in our study believed there was no illness and that their teeth were healthy. With the exception of dental cleaning associated with hygiene and aesthetics, especially by women, persons receiving public assistance did not perceive a need for dental asymptomatic visits. Thus, our lay model is incongruent with the professional model that emphasizes asymptomatic visits to both prevent oral diseases and detect and treat early lesions. Indeed, research has shown that tooth decay is a demineralization of the tooth,[25] which is asymptomatic in the early stages and is often difficult to detect visually. Early decay requires professional preventive—and sometimes operative—care.[26] Thus, there is a conflict between persons receiving public assistance and dentists in the perception of tooth decay and treatment planning.

Our research shows that this incongruence may lead persons receiving public assistance to refuse certain dental treatments and raise doubts about the honesty of the professionals who recommend treating asymptomatic teeth. Because dentists are very much concerned with patient compliance,[27–29] our study upholds the hypothesis that dentists may be frustrated when persons receiving public assistance express distrust and refuse treatment. This may be one reason why some US dentists do not participate in the Medicaid program, even though Damiano[30] showed low reimbursement rates were the main reason for not participating. Therefore, the lay nosological model that we described may lead to conflicted relationships between dentists and persons receiving public assistance. It also may prevent the latter from receiving early treatment for tooth decay, which is highly prevalent among underprivileged populations[1] and is the principal cause of tooth loss among adults.[31]

The perceptions of persons receiving public assistance nonetheless concurred with those of professionals when interpreting symptoms: they knew that persistent pain was associated with a pathological process that leads progressively to the tooth's destruction and must be treated by a dentist. However, despite clear knowledge of the consequences of delaying the dental visit and the perceived need for dental treatment, our participants tended to delay their visits until pain became unbearable. This behavior may have serious consequences, because the delay sometimes lasts months or even years, and decay may reach an advanced stage. In a previous study,[9] we showed that, in this situation, persons receiving public assistance have to choose between 2 alternatives: have the painful tooth extracted or have a root canal to preserve the tooth. However, because the latter is not covered by the public insurance program, it is an expensive and therefore unrealistic option for persons receiving public assistance. Additionally, some perceived the root canal to often be ineffective and believed it "merely [delays] the extraction by a few months or years."[9] Thus, delaying the visit may be "a way of preventing an eventual negotiation with the dentist."[9]

Contradictory to our initial hypotheses, persons receiving public assistance did not perceive enduring pain and delaying the dental visit as an empowering process by which they showed their strength and overall good health. Instead, they considered tooth pain to be a burden that they compared with the pain they might endure during dental treatments. The comparison between these 2 types of pain, and the fact that many participants cited the administration of a local anesthetic as a particularly painful and frightening event, shows how fearful and hostile persons receiving public assistance perceived the dental office to be.

Our research shows that the perception of dental health and illness among persons receiving public assistance tends to prevent them from receiving early treatment for tooth decay and may lead to disagreements with dentists. When tooth pain occurs, persons receiving public assistance perceived a need for professional treatment but preferred to wait and suffer because of their fear of pain during dental treatments and their reluctance to undertake certain treatments. To improve access to dental care among persons receiving public assistance, it is important to change

their dental nosological models and help them reduce their dental anxiety. Future research should identify (1) other recipients' perceptions, especially the perceptions of Medicaid recipients, and (2) dentists' perceptions of their relationships with persons receiving public assistance. ■

About the Authors

Christophe Bedos is with the Faculty of Dentistry, McGill University, and the Groupe de Recherche Interdisciplinaire en Santé (GRIS), Université de Montréal, Montreal, Quebec. Jean-Marc Brodeur is with the Faculty of Medicine and the GRIS, Université de Montréal. Alissa Levine and Witnisse Mereus are with the Faculty of Dentistry, McGill University. Lucie Richard is with the Faculty of Nursing and the GRIS, Université de Montréal. Laurence Boucheron is with the Public Health Department of Montreal.

Requests for reprints should be sent to Christophe Bedos, DDS, PhD, Faculty of Dentistry, McGill University, 3640 University St, Montreal, Quebec, Canada, H3A 2B2 (e-mail: christophe.bedos@mcgill.ca).

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Contributors

C. Bedos originated the study, directed all aspects of its implementation, and led the writing of this article. He was assisted by J-M Brodeur and L. Richard. L. Boucheron organized the focus groups. A. Levine and W. Mereus conducted the analyses. All authors interpreted findings and reviewed drafts of the article.

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Human Participant Protection

At the beginning of each focus group, the participants signed a consent form approved by the Université de Montréal's institutional review board.

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