Reasons for late seeking of dental care among dental patients attending dental clinics at School of Dentistry MUHAS, Tanzania

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Abstract

Aim*:* To determine reasons for seeking dental care at late stages of oral diseases among dental patients attending the dental clinics at the School of Dentistry MUHAS. **Materials and Methods*:*** A total of 365 dental patients aged 15^{+} years who attended outpatient dental clinics of School of Dentistry MUHAS as first visit during the period of study participated in the study by being interviewed on their oral health care seeking behaviour. **Results*:*** Seventy nine percent of dental patients sought oral care due to pain from advanced caries lesions. Eighty percent of dental patients who had toothache had experienced 5 or more toothache episodes before they sought oral care. Reasons for delayed reporting for oral care were negligence (53.5%); poor dental services or visited but not treated (19.4%); financial reasons (14.8%); and dental fear (12.3%). Seventy seven percent of respondents who had toothache due to advanced dental caries were aware that the aching tooth was decayed, of which, 75.8% became aware two or more years before they reported for oral care. Early symptoms for dental caries were noted by 73.8%. Sixty nine percent of 23 respondents who had swelling/tumor reported late for oral care. Reasons for such delays were use of traditional medicine (43.8%) and financial (25.0%). **Conclusion*:*** Majority of dental patients sought oral care due to pain from advanced caries lesions. Negligence was the main reason for not seeking care early. Education on the importance of early reporting to dental facility for care is recommended.

Key words*:* reasons for seeking dental care late, dental patients, Tanzania

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Introduction

During the clinical rotation in the department of Oral Surgery and Oral Pathology in year 2009 the author (KM) noted that majority of dental patients who attended the outpatient dental clinic at School of Dentistry, MUHAS, were seeking oral care at late stages of their diseases. Most of them came to the clinic with history of toothache that had caused several sleepless nights. The main cause of toothache was advanced carious lesions that had destroyed most of the crown with pulp involvement. Others came to the dental clinic with toothache arising from root remnants after the carious lesion had destroyed the whole tooth crown. In each working day it was common to encounter 2-5 patients with abscesses arising from decayed teeth (personal experiences during the clinical rotation in the department of Oral Surgery).

A similar scenario of dental patients seeking oral care at late stages of the disease was revealed by hospital-based studies conducted during the early 1990s. In these studies the main reason for attending at regional dental clinics in Tanzania mainland was relief of pain caused by advanced stages of dental caries (1, 2). Data from the Tanzania national oral health survey conducted in the year 2005 revealed a similar picture whereby 1034 adult Tanzanians, equal to 58.8% of all adults interviewed had had experienced oral pain or discomfort during the past 1 year. Nevertheless, only 274 respondents had sought oral care following pain episode (3). In a study on barriers to restorative care as perceived by dental practitioners working in Tanzania mainland, majority of dental practitioners reported that patients were attending in dental clinics at late stages of the dental caries process, thus rendering restorative care difficult (4). In a similar study on barriers to restorative care as perceived by dental patients, 54% of all dental patients who

participated in the study admitted that reporting late for dental treatment was one of the main reasons for them not receiving restorative care (5). This indicates that dental patients in Tanzania do not respond quickly to pain arising from oral cavity by seeking oral care, despite that oral pain arising from advanced oral diseases has been shown to have negative impact on quality of life (6-8) and on work performance (9, 10).

There are several advantages of seeking oral care at early stages of oral diseases. First the treatment can be undertaken before the disease process has caused much damage to the oral structures, thus improving the success rate of the treatment. Secondly, the treatment thus rendered would be less expensive because treating early oral lesions is cheaper in terms of shorter treatment time and less material used for the treatment compared to treating advanced lesions. Thirdly, early oral lesions cause less or no pain at all; therefore the impact of oral disease to the quality of life and to the economic activities of an individual is minimized. To get the most of the advantages associated with early reporting for oral care, reasons for late seeking for oral care need to be well understood. This will enable those entrusted with improving oral health in Tanzania to identify suitable strategies against late reporting for oral care in favour of early reporting. This will in turn improve quality of life and economic performance of Tanzanians and therefore fulfill the objectives of growing out of poverty in Tanzania as stipulated in MKUKUTA (11).

A number of factors have been reported to influence people to seek oral care at late stages of oral diseases (3, 5, 12-19). The most frequently cited reasons are financial constraints (3, 5, 12-15), including having no form of dental insurance (16), beliefs and misinformation (13, 5, 17, 18), unsatisfactory previous experiences (5, 17, 19), self medication (3, 18, 19), use of alternative/traditional care (3), fear of dental treatment (5, 18, 19), negligence or "wait and see" behavior, and perceived intensity of pain warranting to see a dentist (3, 5, 15, 17, 19). The order of importance of these reasons vary from place to place, therefore one needs to identify reasons for delayed reporting in each community before undertaking required interventions for improving early reporting behavior.

At the time of planning this study, no retrievable information could be obtained on reasons for delayed reporting of dental patients at the dental clinics of the School of Dentistry, MUHAS. Therefore this study was designed to identify reasons for dental patients reporting at late stages of oral diseases. The findings would add knowledge to the data bank on reasons for reporting late for dental care. The information can also be used by oral health authorities responsible with improving oral care at the dental school and in Tanzania at large.

Subjects and methods

Sample size determination, questionnaire, and data collection procedure

The sample size of 362 was calculated using the formula $N=z^2p(1-p)/e^2$; whereby p=62% of patients who reported late for dental care due to negligence (19), while allowing the error of 5%. To attain this sample size, consecutive dental patients aged 15 years and above who verbally consented to participate in the study were interviewed using a semi structured questionnaire presented in Appendix 1. Routinely, all patients who seek dental care for the first time at School of Dentistry are registered and then sent to diagnostic room where diagnosis and preliminary treatment plan is decided. Depending on the preliminary treatment plan patients are distributed to different clinic specialties for management. Clinicians who were assigned in the diagnostic room during the period of the study were requested to interview the patients. At the end of the working day filled questionnaires were collected by the researcher and new questionnaires were provided to clinicians. The process of interviewing patients continued for four weeks consecutively during the working days until the pre-determined sample of 362 participants was obtained.

The questionnaire used was semi-structured which inquired on reasons for attendance, duration of presenting symptoms, number of episodes of toothache or other symptoms, and measures that a respondent had been taking following episode of symptoms. The patient was asked if he/she reported to the nearest health facility for care after he/she had the first episode. If not, she/he was asked to give reasons.

After clinical examination the patient was asked questions in relation to clinical findings: for toothache due to dental caries, the patient was asked if he/she knew that a particular tooth was decayed. If yes, he/she was asked the duration since he/she discovered that the tooth was decayed. The patient was further asked if she/he ever experienced early symptoms of dental caries such as sharp pain that

disappears as soon as the provoking stimulus was removed (cold/hot drinks/foods, salty/sugary drinks/foods, pressure) and the duration since she/he first felt such symptoms to the time he/she noted that a tooth was actually decayed. He/she was then asked if he/she did report immediately to the nearest oral health facility for oral care when she/he felt the early symptoms, and if not, he/she was further asked to give reasons for not reporting to the nearest dental health facility for care. For patients who reported to the dental clinic due to tumor/swelling, they were asked the duration of the swelling and whether the swelling was painful or not. They were also asked the first time they reported to the health facility for treatment. If the reporting time was after six months, the patient was asked to give reasons for such delays. All the answers/explanations were recorded in the spaces provided in the questionnaire.

Data analysis

The questionnaire consisted of open-ended questions to allow respondents to give their own answers. During data entry, answers were entered as they were given by respondents. At data cleaning and analysis stage, answers were grouped and coded into similar themes. Data was analyzed using SPSS version 11.5. The background variables were sex, age and residence. The dependent variables were chief complaint; duration since first episode of toothache arising from a given tooth; episodes of toothache from that particular tooth, measures taken when pain starts, reasons for delayed seeking for care, whether the patient knew that the aching tooth was decayed, whether the patient ever experienced early symptoms of dentinal caries. Other dependent variables related to swellings included duration of swelling, nature of swelling (painless/painful) and reasons for delayed reporting. Toothache episode was defined as pain that arose and disappeared for at least a week. A patient with toothache was categorized as delayed case if he/she had experienced more than one episode. A patient with swelling was categorized as delayed case if he/she had swelling of more than six months duration. Frequency distributions and cross tabulations were generated. Chi-square statistics was used to test associations between independent and background variables. Cut-off point for significant association was p-value of 0.05.

Ethical consideration

The ethical clearance to conduct this research was sought from Muhimbili University of Health and Allied Sciences Ethical Committee. Every patient aged 15 years and above who attended for the first time was requested to participate in the study after the aim of the study was explained to him/her. Subjects were informed that participating or not participating had no adverse consequences to treatment they sought. After the interview patients were attended in a routine manner. All respondents were assured that the information given was strictly confidential and would be used solely for the prescribed research. All patients consented for the study.

Results

A total of 365 dental patients aged 15 to 88 years (mean=35.8, median=33.0) participated in the study. There were no associations between the oral health care seeking behavior and sex, age or location, therefore only descriptive analyses on oral health care seeking behavior are summarized in the current study.

Table 1 shows the distribution of study participants by location, sex and age. Young adults constituted three quarters of the participants from DSM compared to other regions (χ^2 = 4.337; p= 0.037). Participants from other regions compared to DSM were statistically significantly more likely to be males than females (χ^2 = 15.809; p<0.0001).

Table 1: Distribution of 365 study participants by location, gender and age

	Gender		Age	
Location	Male	Female	Young	Older
DSM (n= 340)	35.9	64.1	75.0	25.0
Other regions (n= 25)	76.0	24.0	56.0	44.0
χ^2 test	15.809		4.337	
p-value	<0.0001		0.037	

Table 2 shows the distribution of study participants by responses to specific questions related to seeking oral care. Seventy nine percent of all dental patients who sought dental care at the dental clinic during the period of study had toothache as the main reason for attendance. Only six patients (1.6%) came for check-up. Sixty nine percent of all patients who sought care due to toothache had experienced pain for more than a week before they reported at the dental clinics. Eighty four percent of respondents reported to have had two or more episodes of toothache before they reported to the dental clinics for treatment, of which 80.6% had experienced five or more episode of toothache.

The measures taken by participants to relieve themselves from toothache were mainly use of analgesics (70.2%). Negligence was reported by 53.5% of all respondents as the main reason for such delays. Financial reasons and dental fear was reported by 14.8% and 12.3% of respondents respectively.

Table 2: Distribution of respondents by responses to specific questions on seeking oral care

Question related to seeking oral care	Number	Percent
What brought you to the dental clinic? (n=365)		
➢ Toothache	289	79.2
➢ Trauma or tumor	51	14.0
➢ Check-up, restorative and periodontal care	25	6.8
If toothache, estimate the duration (n=289)		
➢ Within a week	90	31.1
➢ 2-4 weeks	84	29.1
➢ >1 month	115	39.8
Was this the first time you experienced pain from this particular tooth? (n=289)		
➢ Yes	46	15.9
➢ No	243	84.1
If not, how many episodes of toothache (n=242)		
➢ 2-4 times	47	19.4
➢ 5+ times	195	80.6
Measures taken when pain starts (n=289)		
➢ No action taken	53	18.3
➢ Self medication with analgesics	213	73.7
➢ Visited dentist	23	8.0
Why didn't you seek care when you first felt toothache? (n=284)		
➢ Negligence	152	53.5
➢ Financial reasons	42	14.8
➢ Dental fear	35	12.3
➢ Poor dental services or visited but not treated	55	19.4

Table 3 shows the distribution of study participants by responses to specific questions related to the aching tooth that was decayed. Majority (77.2%) knew that their teeth were decayed. Of those who knew that their teeth were decayed, 75.8% were aware that a particular tooth was decayed two or more years before reporting for treatment to the dental clinic at the School of Dentistry. Even after discovering that their teeth were decayed, only 25% of them reported to the nearest dental clinic for treatment/advice. The main reason for not seeking oral care after noting that one's tooth was decayed was negligence (71%). Financial reasons and dental fear were reported by 9.3% and 12.3% of respondents respectively as reasons for them not seeking oral care.

Table 3: Responses to specific questions related to the aching tooth that was decayed

Question related to specific aching decayed tooth	Number	Percent
Do you know that this tooth is decayed? (n=289)		
➢ Yes	223	77.2
➢ No	66	22.8
If yes, when did you first note that it was decayed? (n=223)		
➢ within a month	7	3.1
➢ 2-12 months	47	21.1
➢ 2+ years	169	75.8
Did you seek treatment when you first noted that it was decayed? (n=220)		
➢ Yes	55	25.0
➢ No	165	75.0
If no, why didn't you seek treatment? (n=162)		
➢ Negligence	115	71.0
➢ Dental fear	20	12.3
➢ Financial reasons	15	9.3
➢ Poor dental services or visited but not treated	12	7.5

Table 4 shows the distribution of respondents by responses to specific questions related to experiencing symptoms of early dental caries lesion, action taken and reason for not taking action. Majority (73.8%) had experienced sharp pains that disappeared as soon as provoking stimulus such as cold/hot drinks/foods, salty/sugary drinks/foods, or pressure was removed. Nevertheless, only 23.8% sought advice/treatment to the nearest dental clinic. Negligence accounted for 89.4% of respondents who had experienced symptoms of early carious lesions not to seek dental care. Financial reasons were mentioned by only 4.9% of respondents as the reason for not reporting for dental care when they experienced such symptoms.

Table 4: Distribution of respondents by responses to specific question related to experiencing symptoms of early dental caries lesion, action taken and reason for not taking action

Specific questions related to early symptoms of decayed tooth	Number	Percent
Before you noted that the tooth was decayed, did you ever experience sharp pains that disappeared as soon as provoking stimulus was removed (cold/hot/salty/sugary drinks/foods, and or pressure)? (n=221)		
➢ Yes	163	73.8
➢ No	58	26.2
If yes, did you report to the dental clinic for advice/treatment? (n=163)		
➢ Yes	39	23.9
➢ No	124	76.1
If no, why didn't you report to the dental clinic? (n=123)*		
➢ Negligence	110	89.4
➢ Financial reasons	6	4.9
➢ Lack of knowledge	5	4.1
➢ Poor dental services	2	1.6

* 1 respondent did not respond to this question

Table 5 shows the distribution of 23 respondents with swelling/tumor by responses to specific questions related to seeking oral care. About seventy percent (69.6%) reporting for oral care after six months since they first noted a swelling. Reasons for such delays were mainly use of traditional medicine (43.8%) and financial (25.0%).

Table 5: Distribution of respondents with swelling/tumor by responses to specific question related to seeking oral care

Specific questions related to seeking oral care	n	%
Time taken to report to School of Dentistry/MNH after a swelling was noted? (n=23)		
➢ Early (within 6 months)	7	30.4
➢ Delayed (>6 months)	16	69.6
Reasons for delay (n=16)		
➢ Use of traditional medicine	7	43.8
➢ Financial reasons	4	25.0
➢ Negligence	3	18.8
➢ Referral system	2	12.5

Discussion

The current study was undertaken to explore the reasons as to why dental patients seek dental care at late stages of oral diseases. To enable respondents to give out their answers without being influenced by preset options, the questionnaire was designed to comprise mostly open ended questions. This was considered by researchers as the strength of the current study.

Seventy nine percent of respondents in the current study sought oral care due to dental pain. This indicates that majority of dental patients in Tanzania still seek oral care due to pain. These findings are similar to those reported in early nineties by van Palenstein et al (1) and Mosha et al (2) whereby 86% and 82% of dental patients who attended government regional dental clinics in Tanzania had respectively sought care due to toothache. The findings of the current study differ from that reported in other developing countries of Kenya (20), Nigeria (21) and Kuwait (18) where the proportion of dental patients who sought dental care due to toothache were 55.4%, 31.5% and 30.0% respectively.

Eighty percent of patients who delayed to report for oral care after they felt toothache had experienced toothache episodes for more than five times from the same tooth before visiting the dentist for treatment. Majority of these (71%) gave reasons that were grouped as mere negligence. This indicates that majority of Tanzanians do not know the importance of seeking oral care as soon as they experience pain or discomfort. This may also reflect that majority of Tanzanians do not value their oral health or they do not trust the oral health care delivery system as a solution to their oral health problems. The widespread slogan *"definitive medicine for a toothache is extraction"* and poorly established restorative care in our dental clinics coupled with the desire to retain natural teeth for life may also be a reason for delayed reporting for oral care because people are almost certain that they will lose their natural teeth if they seek oral care. This may also explain the high proportion (70.3%) of respondents who had used analgesics (pain killer drugs) as an alternative for early seeking of oral care. If the dental profession in Tanzania wishes to improve oral health of Tanzanians, efforts need to be done to educate Tanzanians on the importance of early seeking for oral care, coupled with improved quality of restorative care that is accessible to majority of Tanzanians. This is particularly true because 75.8% of the respondents who had delayed seeking oral care knew that their teeth were decayed two or more years before they sought oral care, and 73.8% had experienced the early signs of decayed tooth (sharp pain that disappeared spontaneously or immediately when chewing, taking sugary/hot/cold foods or drinks) prior to noting that their teeth were decayed.

The fact that 71% of patients who delayed seeking oral care did so due to negligence and had stayed with a decayed tooth for more than two years leaves a lot of speculations on the underlying cause of such neglect for oral health. Similar findings were also observed by Christensen who reported that 62% of factory employees who sought dental care late were due to wait and see behavior (19). One can certainly say that most of the dental patients in this community have many other issues that are in higher priority order than oral health. This may be compounded by myths and misinformation. In the study conducted among dental patients who attended government dental clinics in Tanzania mainland, myths and misinformation were among the top reasons for delayed seeking of oral care (5).

As proposed in the preceding paragraph, a national wide education to clarify information on oral health care rendered in our dental clinics and the importance of early reporting for oral care is likely to be a solution to these long standing misconceptions on oral health care in Tanzania.

Negligence was reported by only 18.8% of all respondents with swellings who had delayed to seek oral care. This indicates that swellings are more threatening to dental patients than toothache. Use of traditional medicine was reported to cause delays in 43.8% of the respondents with swellings. This indicates that traditional medicine is still used by many Tanzanians as a first line consultation for their health issues.

Conclusion and recommendation

Majority of dental patients in Tanzania seek oral care due to unbearable toothache. Negligence is the main reason for delayed reporting for toothache cases while use of traditional medicine is the main reason for delayed reporting for cases with swellings/tumors. Most of dental patients know that their teeth are decayed but they do not report early enough for treatment. It is recommended that a national wide education on the importance of early reporting to dental facility for care be conducted, coupled with accessible quality restorative care to majority of Tanzanians.

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