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Non-clinical Expectations of Patients in an Oral Healthcare Setup: A Qualitative Research

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Authors' contributions

This work was carried out in collaboration between all authors. Authors MP and AEA designed the study, wrote the protocol and wrote the first draft of the manuscript. Authors MP and MS collected, analyzed and interpreted of qualitative data. Authors AHZ and NA was revising it critically for important intellectual content. All authors read and approved the final manuscript.

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ABSTRACT

Aims: Patients' expectations are essential part of healthcare delivery system. This would definitely relate to patient satisfaction and consequently would provide a guideline for promotion of community health level. This study illustrates the non-clinical expectations of patients referred to a dental school clinic.
Study Design: This is a Qualitative study.
Place and Duration of Study: This study was performed in dental school of Shahid Beheshti University of Medical Sciences, for a period of three months from May to July 2015.
Methodology: In this qualitative study, seventeen patients aged 18 years and older were interviewed. These patients were selected by convenient sampling method from a dental school in

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Tehran, Iran. The data was gathered based upon semi-structured, face-to-face, and an in-depth interview. The transcribed interview texts were analyzed according to the principals of qualitative content analysis.
Results: The responses were interpreted into two main themes: “met” and “unmet” expectations. “Met expectations” included four subthemes consisting “students and staff behaviors”, “infection control”, “fees”, and “trust” in dental school clinics. “Unmet expectations” included seven subthemes consisting “length of reception process”, “waiting time”, “accessibility”, “explanation about treatment procedures”, “facilities and equipment”, “working hours of the clinic” and “insurance coverage”.
Conclusion: The results highlight that there are many concerns to the eyes of healthcare receivers which should be regarded by healthcare providers and administrators. Meeting these expectations would consequently improve the oral health level of a related community.

Keywords: Dental school; nonclinical expectation; patient expectation; qualitative research.

1. INTRODUCTION

In contemporary healthcare delivery system satisfaction of patients is an important criterion as non-clinical expectations [1]. This goal can be achieved mainly through patient surveys regarding satisfaction, experience and patient-based health outcome investigations. It is generally acknowledged that administrators need to understand the expectations of the patients in order to implement their feedback [2]. It has been shown that Patient- centered care is a term which means more than just a trend in dental hygiene and dental education and it is also a survival process for dental schools [3].

Recent issues in dentistry, including patient expectations of dental services, have raised important valid questions in the mind of administrators. This cannot be achieved only by a quantitative study. According to researchers this can be best studied by qualitative research [4]. In fact, the barriers to access dental services can also be diagnosed with this scientific method. Dental practitioners must ensure that patient expectations are met in order to gain trust and satisfaction [5].

The literature relevant to dentist-patient relationship is replete with advice for dental professionals regarding patient expectations and perceptions when dealing with dental patients. Some of the expectations, the so called "non-clinical" expectations, are less related to the technical competence of dentists, and are more related to the attitude and communication skills of dental professional. Patients seek a dentist who listens to them, has a friendly caring attitude, explains treatment options and procedures, and inspires confidence and trust. The most important health care factor, affecting patient satisfaction, is the quality of the doctor-patient relationship [6]. However, there are conceptual and methodological uncertainties regarding “expectations” and how it should be measured. There is also little information on whether expectations can be modified. One argument is that high expectations should be encouraged and be used as a catalyst for improving health care [6].

The largest body of literature on expectations is related to patient satisfaction. The term “satisfaction” was defined by Kotler as: “A person’s feeling of pleasure or disappointment resulting from comparing a product’s perceived performance or outcome, in relation to his or her expectations” [7]. Also Donabedian stated that meeting patient needs and expectations should be the goal for all clinicians; and that patient satisfaction should be regarded as the ultimate factor for evaluating outcomes of the provided health care services [8]. For the past three decades, measuring patient satisfaction has served as a major route for comprehending the patient perspectives. Patient satisfaction survey results have been utilized as a guide to healthcare quality improvement. Accordingly, our previous study was focused on identifying dimensions of patient satisfaction in dental school clinics [9]. However, instead of relying solely upon patient satisfaction as an indicator of quality improvement efforts, research is also needed to obtain a deeper understanding of patient expectation with respect to their experiences within a health care system. On the other hand, satisfaction with the health care system can be explained by patient expectations [10]. Further, satisfying patient demands, understanding and meeting patient expectations can increase patient compliance with recommendations. Present study explores the patients’ met and unmet expectations in dental school clinics.

Some of the remaining variation in satisfaction with the healthcare system can be explained by patient expectations.

2. METHODOLOGY

A qualitative study was directed to determine patients' expectations upon the care provided in a public dental school. Patients were eligible for interview in the case of being at least 18 years old and parents of patients under 18 years, referring to different clinics for variety of dental treatment needs. The patients were sought dental treatment for more than one visit during the past one year. Furthermore, patients who were less than 18 years and had first attendance at dental school clinics were excluded from the sampling pool. The interviews were done between May and July of 2015. According to these criteria seventeen eligible patients were selected by convenient sampling method. The data were categorized based upon the age range, gender, education level, marital status, and occupation of the patients.

The investigator was calibrated by researcher for conducting semi- structure interviews. This was involved based upon: general introduction to qualitative research, the distinction from quantitative methods, interviewing skills such as gaining trust, establishing rapport and empathy, avoiding leading interviews or imposing one's own judgment or opinions. The interviewer was additionally instructed to perform appropriate use of emotion, professional, and ethical boundaries during contacts. This training was finally tested with role playing for dealing with difficult settings, ensuring the accord to training guidelines. After each interview, coding themes were identified by informal discussion within the research team and finally data saturation was determined accordingly. Qualitative researchers generally seek to reach "data saturation" in their studies [11]. Data saturation means that researchers are hearing nothing new from patients during interviews. Accordingly, saturation is determined by the data analyst [12]. Also, semi-structured, face to face, and an in-depth interview with seventeen patients took place in waiting rooms of dental school clinics.

Before interview, an introduction of the study was delivered to the patients and the aims of the study were outlined. All interviews were audio-recorded using a digital voice recorder. The average length of each interview was 30 minutes. It was declared that participation in the study is completely voluntary and participant could withdraw at any time and confidentiality was respected. All responses were also kept confidential regarding the type of services and the provider identity. Finally, they were told that their participation (or not) in the study would not affect their needed oral care. Since this was a thematic content analysis, the interviewer was calibrated to not impose anything about "expectations".

The interview questions were concerned with three topics:

- What are your non-clinical expectations when visiting dental school clinic?
- Which expectations could be met by the care providers?
- Which expectations could be unmet by the care providers?

Interviews with patients from different departments were transcribed one by one. When later interviews became repetitive and the main concept was distinguished, the analyst would determine the data saturation was reached. Interviews eventually were coded and qualitatively analyzed. Coding themes were informally discussed within the research team. The trustworthiness of the data should be acknowledged because the research team felt that the data were generally straightforward for interpretation and the themes had a great deal of face validity. Once all the transcripts had been coded, they were checked, merged, and classified. After each data set had been coded, themes were labeled as an inductive or bottom-up approach.

3. RESULTS AND DISCUSSION

Patients' demographics are classified according to the number of patients, gender, education level, marital status, and occupation (Table 1). In this study, two themes became apparent through the content analysis which were labeled as "met" and "unmet" expectations.

The "met expectations" consisted of **four** subthemes: Providers' (students and staff's) good behavior, adherence to the rules of infection control, low fee level, and trust to university-based clinics. The other theme was "unmet expectations" which consisted of **seven** subthemes: unfriendly reception process, too long waiting time, inconvenient accessibility, unclear and insufficient explanation of treatment

procedures, old facilities and low equipped, limited and inconvenient working hours, and non-insured services (Table 2).

Table 1. Patients' demographics information are classified according to the number of participants, the age range, gender, educational level, marital status, and occupation

Number of patients	17
Age range	18-65 yrs.
Gender	Female: 10 Male: 7
Education level	Illiterate: 2 Primary school: 2 Middle school: 2 High school: 9 University: 2
Marital status	Married:13 Other:4
Occupation	Public sector: 5 Private sector: 4 Self-employed: 2 Other (housewife): 6

3.1 Met Expectations

3.1.1 Dental students and staff's good behavior

Good communication skill was an issue that patients mentioned.

> "…*We were treated gently in this clinic unlike elsewhere. Doctors were very good. My daughter could not sit at any other clinic whereas she feels well here…"*

3.1.2 Adherence to the rules of infection control

With regard to this item one patient said:

> " … *Doctors change their gloves at the moment of dental extraction quickly and I feel good about it …"*

3.1.3 Low fees

Another patient expressed her experience related to dental care fees in this way:

> "….*since private dentists' costs are very high in comparison to dental school clinics; I prefer here…"*

3.1.4 Trust in dental school clinics

Regarding the performance of dental students, one patient said:

> "… *Dental students performed their activities very honestly and I enjoyed it. In addition to their honesty they perform treatments under the supervision of experienced clinicians …"*

3.2 Unmet Expectations

3.2.1 Unfriendly reception process

Some patients were disappointed with unfriendly method of reception. Also, there was a complaint about late booking times. One patient said about reception process:

> "…*appointment time was too long … we must be here before 8:00 A.M.…I think it could be done by telephone or internet much better…"*

3.2.2 Too long waiting time

The long waiting time had made some patients to begin feel anxious or bored. One patient expressed:

> *"...I have a lot of things to do today and I don't have a lot of time off my work …"*

3.2.3 Inconvenient accessibility

Patients complained of too far distance of clinics to their living locations. One patient described about her way to dental school clinic:

> *"… My home is far away to here. So it makes me some problems …. I must leave home two hours before the appointment time to arrive on time …"*

3.2.4 Unclear and insufficient explanation about treatment procedures

Unlike patients expected their dentist to explain the treatment procedures to them, this did not happen. One patient stated:

> *"… when we asked about our treatment in order to gain basic information, they didn't answer appropriately."*

3.2.5 Old facilities and low equipped clinics

One patient expressed her experience in this way:

> *"… I came here at the start of the semester to receive treatment but they told me that the clinic need repair and the facilities were inadequate..."*

3.2.6 Limited and inconvenient working hours

In the words of one patient about limitation of working hours in dental school clinic:

> *"… When I came to the clinic after the new year holiday, my treatment took three months and then, dental school clinic was closed again for summer vacation ….what I should do with my uncompleted works?"*

3.2.7 Non-insured services

One patient exclaimed about unsupported services by insurance:

> " … *I am a retired teacher and there is no insurance coverage for none of the services here."*

3.3 Discussion

In this study, we had seventeen patients and used a semi-structured approach to assess their expectations regarding the forthcoming dental treatments. Data gathered from the patients were divided into two main themes of expectations, "met" and "unmet".

Table 2. The patient expectations were categorized in two "main themes", met and unmet. In turn, "met" expectations are defined into four subthemes. The "unmet" expectations are also classified into seven subthemes

Main themes	Subthemes	Patients words
Met expectations	Students and staff behaviors	- Mild and gentle behavior - Respecting children and being nice to them
	Infection control	- Compliance to hygienic measures - Changing gloves between patients - Clean and hygienic environment
	Fees	- Being satisfied with the cost of services (particularly root canal therapy and filling)
	Trust	- Honesty in practice - Spending time for patients - Supervision of instructors - Not performing unnecessary treatments
Unmet expectations	length of reception process	- Going to clinic in the early morning to book an appointment - Low admission capacity - No order in appointments - Difficulty getting an appointment - No building signs
	Waiting time	- Irregular appointments - Not addressing emergency needs - Prolonged provided services
	Accessibility	- Long distance to the university clinics - Difficult transportation with public transport systems
	Explanation about treatment procedures	- Not giving adequate responses to patients' questions - No informatory instruction or chart - Not informing patients regarding the idiopathic problems during the treatment
	Facilities and equipment	- No equipment when the power outage - Old equipment device break down - Weak technical support for equipment - Inappropriate work environment for children
	Working hours of the clinic	- Long summer holiday - Taking leave of absence for coming to only day appointment
	Insurance coverage	- Insurance not covering the treatment costs of retired employees and very low income patients

Newsome and colleague observed that awareness of patient expectations is important, and it helps dentists to change both the service delivery process and the service outcome to meet the expectations. It also helps actively manage patients to ensure that they conform to the service that is to be provided. While such recommendations appear to make considerable sense, on the other hand, there are some substantial gaps between patients' expectations and dentists' understanding regarding those expectations. Their observations and also other similar studies have examined the fulfillment of expectations by comparing patients' views on ideal and actual behaviors of dentists [13]. This present study only considered patients' expectations.

White investigated on the difference between service quality expectations and perceptions of patients (customers' experiences) attending at a dental training hospital by using a modified version of the Parasuraman SERVQUAL model. This model consists of five quality dimensions: assurance, empathy, reliability, tangible and responsiveness [14]. Also Karydis et al. investigated the expectation and perception of Greek patients regarding the quality of dental health care in four dimensions: assurance, empathy, reliability and responsiveness [15]. These dimensions are similar quality criteria that are also observed in this study of dental health care, but from different perspective.

Lahti et al. reported that divergence between ideal and actual dentist behaviors falls mostly into the area of the "communicative" and "informative". Meaning that the dentists often did not give information about preventive procedures, did not conform to the patient when applying local anesthesia, did not ask about the chief complaint of the patient, and did not ask how the patient felt during the procedure. Also Lahti et al. offered the following explanation that "...as the procedures are so common and clear to dentists, they do not see the importance of talking about them and explaining them to their patients. One example is the fact that, even though most dentists certainly wash their hands before treatment, they do not see that it might be important for the patients to see them doing so" [16]. Our study reached to the same result indicating that adherence to the rules of infection control was one of the main expectations for the patient. Plus, this study also showed that patients expect some explanation related to treatment.

Clow et al. [17] found that patients' image of the dentist is highly related to their expectations. Interestingly, he also reported that marketing variables such as price had no effect on patient expectations. This finding was inconsistent with our result. In fact, cost was identified as one of the met expectations in dental school clinics.

One the assumed the expectation for patients is respecting the referee regardless of the level of severity of oral health status. This has been pointed out in this study and Sbarini investigation. He emphasized that patients greatly valued being treated by a caring dentist who respected and listened to their concerns without "blaming" them for their dental problems. These patients complied with and supported the preventive care options because they were being "treated as individuals not as patients" by their dentists. Patients respect a dentist who made them aware of existing preventive options. They seek a health professional that educate them to how maintain a healthy mouth and teeth. This professional support reassures the oral health promotion standards of a community. Obviously, these expectations are beyond the technical competence of dentists [6]. Also, in Holt et al study, 90% of the respondents rated "interpersonal skills" as the most important factor that influenced dentist-practice loyalty [18].

Similar to this study, Gurdal also found that dental patients did not like to wait for long periods prior to dental therapy. They expected their treatment to be performed at the earliest possible time. Therefore, any failure in fulfilling these expectations may lead to improper expression by the patients as ''disorganized service system''. It should be reminded that the dental care services provided in all dental faculties is based on scheduled appointments, and dental interns are mandated to perform dental treatments under the supervision of attending professors. This obligation lengthens the treatment periods that may influence on patient expectations [19].

It is a fact that studies designed like the present one have some inevitable limitations that may affect the results. Some patients may have not expressed their expectations in some areas due to fear or anxiety related to their own internal characters. The other point is that, expectations of patients are based on their experiences, environment, social background and personality. Areas of further research that could have an

impact on policy making for health services consist of:

- Investigation of patient expectations in non-public or private settings
- Comparison between patient expectations in public and private dental setting

4. CONCLUSION

Results of this research highlight that the awareness of patients' met and unmet expectations can enable administrators to improve the quality of health services. From the health care administrator's perspective, understanding patient expectations would guide allocation of resources towards patient satisfaction principles. From the policy maker's perspective, understanding patient expectations can be the keystone of good institutional and national policy making.

CONSENT AND ETHICAL APPROVAL

The study was approved by research committee secretariat the research affairs of School of Dentistry, Shahid Beheshti University of Medical Sciences on March 2015 (sbmu.650). All authors declare that the study was carried out in accordance with the ethical standards laid down in the 1964 declaration of Helsinki. Also consent letter has been used before the interview.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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