

## FACTORS AFFECTING PATIENT SATISFACTION AND DELAY IN URGENT CARE IN PATIENTS REPORTING TO KHYBER COLLEGE OF DENTISTRY

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### ABSTRACT

**Objectives:** To identify the causes of delay in dental care in patients reporting to different Department of Khyber College of Dentistry, Peshawar.

**Materials and methods:** This cross-sectional study was performed among patients visiting different departments of Khyber College of Dentistry from 1st January to 30<sup>th</sup> March 2012. Systematic random sampling technique was used for recruitment of study sample. A structured close ended questionnaire was used to obtain information pertaining to three demographic variables, three main causes of delay in patient care and six major groups of questions pertaining to factors affecting patient satisfaction. The collected data was analyzed using SPSS version 17.

**Results:** 250 patients were included in the study. Male patients highlighted quality of treatment as the leading cause of dissatisfaction whereas females were more concerned with delay in care delivery. The 16-25 years age group pinpointed delay in urgent care as the leading causes of dissatisfaction, whereas the 55 years and above age group mentioned unpleasant previous dental experience as the predominant cause of dissatisfaction. Patients with higher education levels were more satisfied with than patients with low educational levels. The treatment of 80 patients was delayed due to clinical presentation of patients, with acute infection being the predominant cause (28.75%).

**Conclusion:** The common causes of patient dissatisfaction were quality of treatment, delayed dental care, interpersonal issues and unpleasant previous dental experience, which varied with gender and age. Patients with higher educational levels reported with higher satisfaction. Amongst quality and facility of treatment, delayed appointments and cleanliness of instruments were the predominant factors of dissatisfaction. The main cause of delay in care delivery was due to patient factors such as the clinical presentation of patients.

**Keywords:** Patient satisfaction, Delay, Urgent care.

### INTRODUCTION

The good health of nations is a key to human development and economic growth<sup>1</sup>. Over the last 100 years, quality of life and human longevity have improved in most of the industrialized world as a result of advances in human health resources. Nevertheless humans continue to suffer because they do not have access to appropriate health care or because health care delivered in a manner that

is inefficient<sup>2</sup>. Within all systems, people are working at different levels to improve the health of their communities. To move towards higher quality care, more information is required on existing provision, interventions offered and on major constraints on service implementation<sup>3</sup>. It is therefore important to analyze the health system performance. Many countries are developing initiatives to measure the performance of their health care system to guide the improvement process. A relevant tool for assessment of hospital performance is a patients satisfaction survey, which reveals patient satisfaction levels with hospital care<sup>4</sup>. A patient's satisfaction is an attitude; a person's general orientation towards a total experience of health

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care. Satisfaction comprises both cognitive and emotional facets and relates to previous experiences, expectations and social networks<sup>5</sup>. A large number of factors affect the patient's satisfaction level. A review of the medical literature relating to the term "patient satisfaction" shows little research on the topic in the 1960s and 1970s. However, things began to pick up dramatically in the early 1980s. Between 1980 and 1996, there was a five-fold increase in the number of researches devoted to this topic. Perhaps the interest was due to a natural outgrowth of the consumer movement that began in the 1960s and 1970s or may be it reflected the maturation of the family medicine research. Equally plausible might be the emerging competitiveness of managed care, which led to the use of patient satisfaction surveys to distinguish between providers<sup>6</sup>.

Information through patient's surveys has proven to be a successful way of strategic evaluation and improving quality of health services<sup>7</sup>. Previous studies concerning patient's satisfaction have concluded that satisfaction is a multidimensional concept involving many aspects of health care<sup>8</sup>. A review of dental patient satisfaction studies indicated that there is a generic list of five practice factors that influence patient satisfaction; technical competence, interpersonal factors, convenience, cost and facilities<sup>9</sup>. It is evident that meeting patient's needs and expectations of dental care will affect patient behavior in terms of better compliance, fewer broken appointments and less pain and anxiety<sup>10</sup>. Other studies have indicated that dissatisfaction with quality and fees, have been associated with generally poor compliance with treatment recommendations, low utilization or termination of treatment<sup>11</sup>. Another important factor regarding patient satisfaction is over crowding issues. Emergency department overcrowding is a serious growing problem throughout the world<sup>12</sup>. The satisfaction level is complicated by high volume of patients, time consuming queues, wide variation in patients complaints<sup>13</sup>. For several years hospital managers were under pressure to improve operational efficacy but public anxiety has arisen when patients were subjected to extended delays.<sup>14</sup> Internal and external factors contribute to patient care delays. These factors include patient characteristics, emergency department staffing patterns,

access to stretchers and health care providers, time of patient arrival, management practices, and testing and treatment strategies chosen<sup>15,16</sup>. The literature appears mixed on the importance of patient's demographic and social factors in determining satisfaction. Some studies stated that patient demographics are a minor factor in patient satisfaction, while others concluded that demographics represent 90% to 95% of the variance in rates of satisfaction<sup>17,18</sup>.

The objectives of this study are to identify the causes of delay in dental care in patients presenting to different Departments of Khyber College of Dentistry Peshawar and to build a comprehensive conceptual model, identifying and measuring variables affecting patient- satisfaction based health care quality.

## METHODOLOGY

A cross-sectional study was performed among patients visiting different Departments of Khyber College of Dentistry from 1st January 2012-30<sup>th</sup> March 2012.

A structured, closed ended questionnaire was used for analyzing factors effecting patient satisfaction and delay in dental care. The questionnaire consisted of three demographic variables, three main factors causing delay in dental care (further divided into 12 questions) and six major groups of questions (further divide into 16 questions) regarding factors effecting patient satisfaction. The questions on demographic items included age, gender and educational status. The causes of delay in dental care were identified by interviewing questions regarding patient's clinical presentation, patient's behavior; assess issues and waiting time due to various reasons. Questions on patient's satisfaction with interpersonal issues, quality issues, previous dental experience, financial issues and willingness for further treatment at Khyber College of Dentistry (KCD) were also included to analyze the factors effecting patient's satisfaction. Information so collected was analyzed using SPSS version 17.

## RESULTS

Out of total 250 patients, 150 (60%) were male and 100 (40%) were female with a male to female ratio of 1.5:1. The age distribution of respondents

were such that majority of patients were in age group 26-35 (36%) followed by age group 16-25 (29.2%). A detail of age distribution is given in Table 1.

Factors causing dissatisfaction in relation to gender showed that males are dissatisfied with dental treatment more in terms of quality (31.33%) and interpersonal issues (25.33%) while females were concerned with delayed dental care (42%) and financial issues (24%). Details are given in Table 2.

Factors causing dissatisfaction in relation to age indicated that in younger patients (16-25 years) satisfaction was effected more by delay in dental care (38.36%), interpersonal issues (34.24%) and quality issues (21.92%) whilst in older patients dissatisfaction was brought mainly by unpleasant previous dental experience (59.09%) and interpersonal issues (31.81%). Details are given in Table 3.

When questioned about interpersonal issues, 95% of patients were satisfied with the technical skill of the attending doctor and overall treatment as well. However, 3% were not satisfied with the

time spend with them by the doctor while 2% were dissatisfied with the inadequacy of explanation about their health problem or treatment.

Out of total 250 patients, 29.2% were illiterate, and 25.2% were metric levels. Only 10% patients were of higher educational status (Table-4). In response to a question regarding the satisfaction level from the dental treatment those who had higher educational levels were more satisfied in terms of percent satisfaction levels on a 10 point scale than those with low educational levels or illiterates. The educational status and level of satisfaction is given in Figure-1.

Quality and facility issues also affected patient’s satisfaction level. Among different variables, most of the patients were bothered by delayed appointments (46%) and cleanliness of instruments (16%). Patients were least bothered by other factors such as lack of skills (5.6%) and less duration of work (4%). Details of quality and facility issue are given in Table 5.

Out of total 250 patients, treatment was delayed in 80 patients due to patient factors. Of these 80 patients treatment was delayed due to acute infection in 28.75% cases followed by inflammations in 22.5% cases. Details are given in Figure-2.

**DISCUSSION**

Patient satisfaction is an area of increased interest for health care administrators and is a sub-

**Table 1: Age Distribution**

Age in years	n	%
16-25	73	29.2
26-35	90	36
36-45	41	16.4
46-55	24	9.6
55 & above	22	8.8
<b>Total</b>	<b>250</b>	<b>100</b>

**Table 2: Factors causing dissatisfaction in relation to age**

Gender	Delay in Dental Care		Interpersonal Issues		Quality Issues		Previous Dental Treatment		Financial Issues		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Male (n=150)	30	20	38	25.33	47	31.33	25	16.66	10	6.66	150	100
Female (n=100)	42	42	8	8	5	5	21	21	24	24	100	100

**Table 3: Factors causing dissatisfaction in relation to age**

Age	Delay in Dental Care		Interpersonal Issues		Quality Issues		Previous Dental Treatment		Financial Issues		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
16-25 (n=73)	28	38.36	25	34.24	16	21.92	4	5.48	0	0	73	100
26-35 (n=90)	36	40	23	25.55	14	15.55	14	15.55	3	3.35	90	100
36-45 (n=41)	19	46.34	2	4.88	3	7.32	14	34.14	3	7.32	41	100
46-55 (n=24)	8	33.34	4	16.67	1	4.16	10	41.67	1	4.16	24	100
55&above (n=22)	2	9.09	7	31.81	0	0	13	59.10	0	0	22	100

Table 4: Educational level

Education Level	n	%
Illiterate	68	29.2
Under-Metric	50	20
Metric level	63	25.2
Intermediate	39	15.6
Higher	25	10
<b>Total</b>	<b>250</b>	<b>100</b>

Table 5: Quality and Facility issues causing delay in dental care

Variable	n	%
Delayed appointments	115	46
Cleanliness of instruments	40	16
Privacy	35	14
Ease of finding concerned departments	20	8
Financial issues	16	6.4
Lack of skills	14	5.6
Less duration of work	10	4
<b>Total</b>	<b>250</b>	<b>100</b>

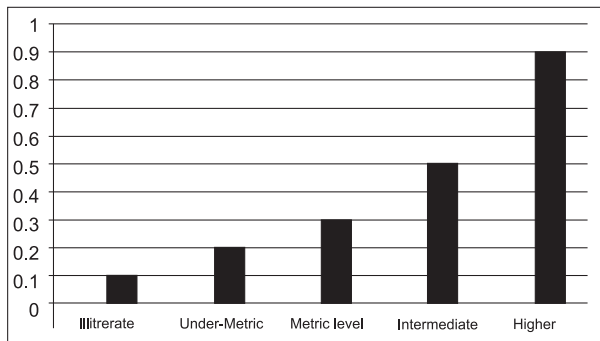


Fig. 1: Patient's satisfaction level in relation to educational status

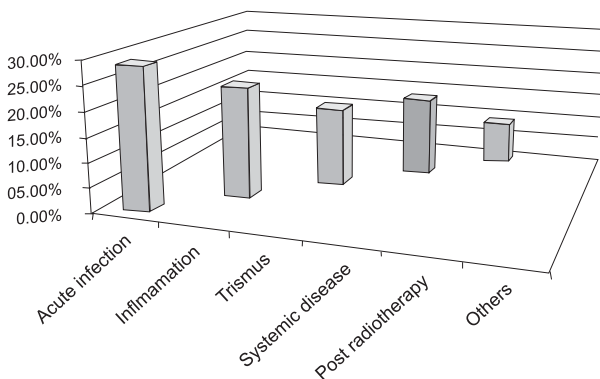


Fig. 2: Patient factors causing delay in dental treatment

jective phenomenon based on the patient's expectations, perceptions, attitudes, beliefs, and prior experiences. Gender of patient has been included in

this study and satisfaction levels were found with some factors responsible for dissatisfaction in one group while other factors in the opposite gender. The findings in the present study reflected that females were not satisfied with their dental treatment because of two main factors i.e delayed provision of an opportunity to receive dental treatment as well as financial issues. Studies on the effect of gender on patient satisfaction level are contradictory, with some studies showing that male and female level of satisfaction was almost similar<sup>2,3</sup>. Other studies<sup>5,6,7</sup> showed that women tend to be less satisfied as compared to men. Females overall satisfaction with visits is more dependent than males on access issues, delay of care and financial issues. These findings indicate dependency of females in this region of world. More over females in this part of the region are kept out of reach of health care facilities by socioeconomic factors<sup>19</sup>.

Our results showed that the age significantly altered patient's satisfaction. We found that different age groups were statistically correlated to different domains in terms of satisfaction. Factors causing dissatisfaction in relation to age indicated that in younger patient's satisfaction was effected more by delay in dental care, interpersonal issues and quality issues whilst in older patients dissatisfaction was brought mainly by unpleasant previous dental experience and interpersonal issues. Previous studies in different parts of the world also had shown similar results<sup>1,2,3</sup>. Older individuals (55 years and above) felt more satisfied with their overall level of dental care and satisfaction in the present study. Like other international statistics<sup>4,8,9</sup>, older people have been reported to feel "lucky" in comparison with their parents because their parents had even less control over their health and health care. Similarly, they may feel "gratitude" because they have better access to a wider range of health technologies today. Uncritical attitudes might reflect the lack of confidence among older people in demanding services, reflecting, in turn, their lower levels of education than younger adults. Hence they might also be less aware of potentially beneficial treatments. There is some evidence from surveys that people value themselves less with increasing older age and feel they should be prepared to give up their place in health service queues to younger people. Perhaps they feel morally obliged,

“on the surface”, to agree with this “fair innings” principle.

Many satisfaction studies have tried to relate educational level to a patient’s satisfaction levels. Some studies correlated higher educational levels to lower patient satisfaction.<sup>7,9,11</sup> But others reported that more educated the patient was, the more was he or she satisfied.<sup>11</sup> The latter correlates with the finding of the present study. Looking deeper into patient’s concerns, educated people were more concerned about the competency of the attending doctors and the time spent with them. Another issue of main concern was the proper cleanliness of instruments. This clearly showed the level of awareness among educated patients regarding most important aspects of their treatment. On the other hand, illiterate patients showed their concerns mainly related to delay in treatment and financial issues. Among interpersonal issues, patients’ satisfaction was altered mainly by the technical skills of attending doctor. Majority of the patients who had history of successful dental treatment, were satisfied, however, a small number of patients showed their trust despite failure of previous treatment. These patients understood the limitations of treatment delivered to them. They usually based their satisfaction on the attitude of the attending doctor and the information regarding treatment delivered to him/her by the doctor. This has also been a remarkable finding in the studies carried out in the past<sup>11,12-17</sup>.

Although we have identified group of patients with different satisfaction levels and factors responsible for it, other more proximal variables related to patients such as acute infections and inflammatory conditions and systemic diseases limiting the provision of urgent care are also a main factor. Studies done to analyse the various factors responsible for delay of provision of urgent care to the community have shown almost similar results.

## CONCLUSION

The following can be concluded from the results of the present study.

1. Males were dissatisfied with dental treatment more in terms of quality and interpersonal issues while females were concerned with de-

layed dental care and financial issues.

2. Younger patients’ satisfaction was affected more by delay in dental care, interpersonal issues and quality issues whilst in older patients’ dissatisfaction was brought mainly by unpleasant previous dental experience and interpersonal issues.
3. Patient’s satisfaction was dependent mainly on technical skill of the attending doctor and the quality of overall treatment, delayed appointments, cleanliness of instruments and the time spent with them by the doctor.
4. Patients with higher educational levels were more satisfied as compared to low educational levels or illiterates.
5. Patient factors such as acute infections and inflammatory conditions as well as systemic diseases were also responsible for the delay of treatment.

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