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## Determinants of Patient Satisfaction with Outpatient Health Services at Al-Jumhori Teaching Hospital in Mosul

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### Abstract:

**Background:** Patients satisfaction is a key criterion by which the quality of health care services is evaluated. Studies on patients' satisfaction have been recognized as a way to identify priorities and problems of health care services.

**Objectives:** To evaluate patients' satisfaction with health care services provided at outpatient clinics of Al-Jumhori Teaching Hospital in Mosul, and its association with different socio-demographic and other factors of respondents.

**Methods:** A cross-sectional study was conducted on 300 patients attending outpatient's clinics at Al-Jumhori Teaching Hospital in Mosul for the period between the 1<sup>st</sup> of February and 30<sup>th</sup> of April 2013. Adult patients 18 years and older, sexes, all social classes and all levels of educations were interviewed about their satisfaction with services provided at outpatient clinics in the hospital.

**Results:** A total of 300 patients were enrolled in this study. The response rate was 90%. The mean age of the participants was (36.59±17.18) years, 57.3% were males and the rest were females. Majority (88.7%) of the respondents was satisfied with all aspects of services provided by outpatient's clinics and the highest satisfaction was with physician's care (89.7%). Satisfaction level was significantly related to age (P= 0.027), marital status (P=0.0001), educational level (P=0.0001) social class (P=0.0001), and history of previous visits to outpatient clinics (P=0.005). Gender, residence and type of clinic had no significant association with patients' level of satisfaction in outpatient clinics.

**Conclusion:** This research concluded that age, marital status, education level, social class and history of previous visit to outpatient clinics had significant effect on patients' level of satisfaction with health care services provided at outpatient clinics of Al-Jumhori Teaching Hospital in Mosul.

**Keywords:** Determinants, patient satisfaction, outpatient, quality of health care, Mosul

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### Introduction:

Patients' satisfaction is a vital health care outcome indicator and should be given focus by the hospital administrators. It can be defined as a subjective evaluation of the services received against the individual's expectations. Studies on patients' satisfaction have been recognized as way to identify priorities and problems of health care services<sup>(1-3)</sup>.

Patients' satisfaction is measured over a wide range of health service scope, including availability, accessibility and convenience of services, technical competence of the providers, interpersonal skills and the physical environment where services are delivered<sup>(4,5)</sup>.

Patients' satisfaction is a multi-dimensional healthcare issue affected by many factors. Healthcare quality affects patients' satisfaction, and in result it influences on positive patient behavior such as confidence in hospital care<sup>(6)</sup>.

Different demographic aspects of patients can affect the patients' satisfaction level, many studies have revealed a relationship between patients' satisfaction and age, marital status, education level and income level of patients<sup>(6-9)</sup>, however, some

studies showed that age, gender, income or formal education have no clear connection with the patient satisfaction<sup>(10)</sup>.

Patients' satisfaction has been an area of special interest for researchers involved in health system researches for almost half a century. Countless number of studies on this important topic has been published since then<sup>(11)</sup>. however, Patients' satisfaction about health services seems to have been largely disregarded by health care providers in the developing countries, including Iraq<sup>(12)</sup>.

Based on the above background, the aim of this study is to evaluate patients' satisfaction with health care services provided at outpatient clinics of Al-Jumhori Teaching Hospital in Mosul, and its association with different socio-demographic and other factors of respondents.

### Patients and method:

Cross-sectional study design have been adopted in order to achieve the objectives of the study, the study included 300 patients attending outpatient clinics at Al-Jumhori Teaching Hospital for the period between the 1<sup>st</sup> of February and 30<sup>th</sup> of

April 2013. The clinics included the general surgery, urology, ENT, ophthalmology, orthopedics, dental, and cardiothoracic surgery clinics.

Adult patients 18 years and older, sexes, all social classes and all levels of educations were included in this study. Patients younger than 18 years and those with severe mental illness were excluded from the study.

Approval of the study was taken from the local Ethical Committee in Nineveh Directorate of Health and informed written consent was taken from all participants.

Data collection tool in this study was a questionnaire adopted from French model of patients' satisfaction questionnaire the QSH-45<sup>(13)</sup>, and was modified by the researcher according to the present study locality. The questionnaire forms were filled by the researcher through face to face interview administered to participants for about 10 minutes. The interview carried out on 3 days/week.

The questionnaire had two sections: The first section includes questions about the socio-demographic and other characteristics of the study participants (age, sex, education level, residency, etc...). The second section composed of 22 questions about patients' satisfaction and includes: 10 questions about physicians' care (physician's availability, communication, technical competence regarding examination, counseling and education, privacy and adequate consultation time), 4 questions about nursing staff care (nursing staff availability, communication, privacy and technical competence) and 8 questions about the outpatient administration (outpatient fees, presence of suitable parking services, cleansing services, outpatient accommodation, decoration, lightening, rooms size any informal payment to the medical staff).

Social classes were classified into 5 classes based on "Registrar General Occupational Classification in England and Wales"<sup>(14)</sup> as follow: class I includes professional occupations, class II includes semiprofessional occupations, class III includes skilled occupations, class IV includes semiskilled occupations, and class V includes unskilled occupations.

Patient satisfaction were measured on 5 points Likert's Scale from strongly disagree which indicates a score of 1 to strongly agree equal to 5<sup>(15)</sup>. The mean scores for each domain were calculated. Scores above

or equal to 60% considered as satisfied and those below 60% as unsatisfied<sup>(15)</sup>. Analysis of data was performed using SPSS (version 14) program.

Descriptive statistics, including frequencies, percentages, means and standard deviations (SDs), were calculated for variables. Chi square test was applied for association between satisfaction and socio-demographic characteristics of the study participants. P value of less than or equal to 5% was considered significant throughout analysis.

### **Results:**

A total of 300 patients enrolled in this study. The response rate was 90%. The mean age of the participants was (36.59±17.18) years with 42.7% of them lies in age category 18-29 years. Over half (57.3%) of study sample were males and the rest were females. Male to female ratio was 1.34:1. More than two third (70.3%) of the respondents were either illiterates (24.3%) or have a primary education certificate (46%) and only 15.4% have high education certificate. More than half (57.4%) of respondents were married and 69% lived in urban areas. Over half (54.3%) of the study sample were from the third social class with 12.7% from the fifth and only 3.3% of respondents belonged to the first social class. Just over one third (39.7%) of the respondents were visiting the outpatient department for the first time and 22.3% were consulted the orthopedic surgery clinic (Table1).

Table 2 reveals the distribution of study sample according to their satisfaction levels for satisfaction measures. Majority (89.7%) of participants were satisfied with physicians care, 81% were satisfied with the outpatient administration services and the lowest satisfaction level was for the services provided by nursing staff (76.3%). The overall satisfaction with services provided by outpatient clinics was 88.7%.

Table 3 shows the association between patients' satisfaction and socio-demographic and other characteristics of the study sample. Younger age group (18-29 years) shows significantly higher satisfaction level compared with other age groups (P=0.027). Married patients and those with lower educational levels had a significantly higher satisfaction level compared with other groups (P=0.0001). Social class had also significant association with patients' level of satisfaction and

those who belongs to the third social class had a significantly higher satisfaction level compared with other classes (P=0.0001). Patients who have visited the outpatient clinics more than once, were

significantly more satisfied than those who came for the first time (P=0.005). Gender, residence and type of clinic had no significant association with patients' level of satisfaction in outpatient clinics.

**Table 1: Socio-demographic and other characteristics of the study sample (n=300).**

Characteristics	No.	(%)	
<b>Age (years)</b>	18-29	128	(42.7)
	30-39	52	(17.3)
	40-49	42	(14.0)
	50-59	39	(13.0)
	60+	39	(13.0)
	Mean± Standard deviation	36.59±17.18	
<b>Gender</b>	Male	172	(57.3)
	Female	128	(42.7)
<b>Educational level</b>	Illiterate	73	(24.3)
	Primary	138	(46.0)
	Secondary	43	(14.3)
	High education	46	(15.4)
<b>Marital status</b>	Single	103	(34.3)
	Married	172	(57.4)
	Divorced	10	(3.3)
	Widowed	15	(5.0)
<b>Residence</b>	Urban	207	(69.0)
	Rural	93	(31.0)
<b>Social class</b>	First (Professional)	10	(3.3)
	Second (Semiprofessional)	11	(3.7)
	Third (Skilled)	163	(54.3)
	Fourth (Semiskilled)	78	(26.0)
	Fifth (Unskilled)	38	(12.7)
<b>History of previous outpatient visits (same outpatient)</b>	Yes	181	(60.3)
	No	119	(39.7)
<b>Types of outpatient clinics</b>	Cardio-thoracic surgery	21	(7.0)
	Dental surgery	29	(9.7)
	ENT	58	(19.3)
	Ophthalmology	35	(11.7)
	Orthopedic surgery	67	(22.3)
	Uro-surgery	40	(13.3)
	General surgery	50	(16.7)

**Table 2: Distribution of the study sample according to their satisfaction levels for satisfaction measures (N=300).**

Satisfaction measures	Unsatisfied No. (%)	Satisfied No. (%)
Physician care	31 (10.3)	269 (89.7)
Nursing staff care	71 (23.7)	229 (76.3)
Outpatients administration	57 (19.0)	243 (81.0)
Overall satisfaction	34 (11.3)	266 (88.7)

**Table (3): Association between patient satisfaction and socio-demographic characteristics of the study sample.**

Characteristics*	Unsatisfied patients N=34	Satisfied patients N=266	P-value
<b>Age (years)</b>			
18-29	23	105	0.027
30-39	5	47	
40-49	3	39	
50-59	1	38	
60+	2	37	
<b>Gender</b>			
Male	24	148	0.097
Female	10	118	
<b>Educational level</b>			
Illiterate	6	67	0.0001
Primary	11	127	
Secondary	3	40	
High education	14	32	
<b>Marital status</b>			
Single	19	84	0.0001
Married	5	167	
Divorced	5	5	
Widowed	5	10	
<b>Residence</b>			
Urban	24	183	0.832
Rural	10	83	
<b>Social class</b>			
First (Professional)	5	5	0.0001
Second (Semiprofessional)	5	6	
Third (Skilled)	14	149	
Fourth (Semiskilled)	5	73	
Fifth (Unskilled)	5	33	
<b>History of previous outpatient visits (same outpatient)</b>			
Yes	13	168	0.005
No	21	98	
<b>Types of outpatient clinics</b>			
Cardio-thoracic surgery	3	18	0.788
Dental surgery	2	27	
ENT	9	49	
Ophthalmology	3	32	
Orthopedic surgery	7	60	
Uro-surgery	6	34	
General surgery	4	46	

\*Using  $\chi^2$  test

**Discussion:**

The issue of patients' satisfaction has many policy implications in regard to identifying patient's needs, developing standards, designing services systems and processes, establishing employee and patients roles in service delivery, enhancing training programmes, managing demand and capacity, and delivering the needed quality of services, therefore it has become increasingly important for health care providers to systematically measure patients' satisfaction with their services<sup>(16)</sup>.

The concept of tailoring of medical care towards patient's expectation and the idea of patients' satisfaction is new in developing countries<sup>(17)</sup> few

studies had been done in this field in Mosul City<sup>(18,19)</sup>.

The questionnaire used in this study was adopted from French model of patients' satisfaction questionnaire the QSH-45<sup>(13)</sup>, and modified by the researcher according to the present study locality. Using previously published questionnaire thought to add strength to the study because its validity has been already tested and would allow international comparison to be done.

It is worth pointing out that while most patient satisfaction studies depend on response to mailed questionnaires<sup>(20,21)</sup>. In the present research, the questionnaires were filled by direct face to face interview with the respondents which may generates

a higher response rates than mails survey (up to 30%) according to crow *et al.*<sup>(22)</sup>. This may explain the high response rate (90%) reported in this study.

According to the results of the present study 88.7% of the samples were satisfied with all aspects of medical care provided by outpatient clinics at Al-Jumhori Teaching Hospital. This finding is comparable to that reported in Thailand<sup>(23)</sup> (86.67%), but higher than that reported in other studies in Mosul (73.6%)<sup>(18)</sup>, United States<sup>(24)</sup> (70.1%) and Nigeria<sup>(25)</sup> (66.8%). This good level of patients' satisfaction reported in this research despite of poor services can be hypothesized to be due to low level of expectations of health services in developing countries, as more than half of the populations belongs to lower social class, so their need and expectations will be low<sup>(26)</sup>.

In the present study the respondents showed high satisfaction level with physicians and nursing staff care (89.7% and 76.3%) respectively. These findings is consistent with that reported from other medical literatures<sup>(18,27)</sup>. This high satisfaction with physicians and other medical staff care might also have an effect on the overall satisfaction level<sup>(28,29)</sup>.

Satisfaction is a crude index for determining the quality of services and the way in which they are presented by medical staff. It is associated with a number of individual and clinical factors<sup>(30)</sup>. The present study revealed that the age had significant effect on patients' satisfaction with younger age group (18-29) years showed significantly higher satisfaction level compared with other age groups. This was also approved by other studies conducted in Pakistan by Afzal *et al.*<sup>(7)</sup> and in the United State by Hall and Dornan<sup>(8)</sup> which revealed that the age have significant effect on patients' satisfaction and the highest satisfaction was found in age group (25-35) years<sup>(7)</sup>. The effect of the age variable on satisfaction was not significant in Japipaul study, but it showed interesting results, the greatest level of satisfaction was in the group (15-24) years old, and then it decreased gradually and increased again in the group who were over 60 years old<sup>(21)</sup>. It is possible that lower satisfaction of older age groups reflect their relatively high expectations that can't be easily met<sup>(8)</sup>.

Although men in this study were more satisfied with health services than women, this study failed to demonstrate any significant influence of a patient's sex on his/her satisfaction with a medical

services. This finding is consistent with that reported in other medical literatures, which revealed that the sex had no significant effect on patients' satisfaction<sup>(8,10)</sup>.

In consistency with other studies<sup>(8,18,20)</sup>, this study showed that patients with lower educational levels (illiterate/primary) had significantly higher satisfaction level compared to those with higher educational levels (secondary/high education). This can be elucidated by the fact that highly educated people have more critical thinking and so have high level of expectations in all aspects of life<sup>(31)</sup>.

In the current research social class had significant association with the patients' level of satisfaction and those patients who belongs to the middle and lower social classes (fourth and fifth social class) had a significantly higher satisfaction level compared with other classes (first and second social classes). This finding is inconsistent with that reported by Hall and Dornan in their study about patient socio-demographic characteristics as a predictor of satisfaction with medical care, who viewed social class as having significant relation with patients' satisfaction and the greater satisfaction associated with higher social class<sup>(8)</sup>. This good level of patients' satisfaction reported in lower social classes in this study despite of poor services assumed to be due to low level of expectations of health services in developing countries, as more than half of the populations belongs to lower social class, so their need and expectations will be low<sup>(26)</sup>.

According to the results of this study patients with repeated visits to the outpatient clinics were significantly more satisfied than first time visitors. This was reported by other medical literature<sup>(18,30)</sup>. It is possible that, patients may become familiar with health system and medical staff and so felt less scared than if they were in a new and strange place<sup>(30)</sup>.

Regarding patients' residency, this study could not demonstrate any significant association between patients' residency and patient's level of satisfaction, a finding which disagree with that reported with other medical literatures<sup>(8,31)</sup>.

The findings of this study should be interpreted in light of some limitations. Since it was only a cross-sectional study so the results are not conclusive about the causes of satisfaction with outpatient services owing to absence of a comparison group. Moreover, this study was constrained to

outpatient clinics of one hospital in Mosul City; hence, it would be difficult to generalize its conclusions to the whole city.

In conclusion the age, marital status, education level, social class and history of previous visit to outpatient clinics had significant effect on patients' level of satisfaction with health care services provided at outpatient clinics of Al-Jumhori Teaching Hospital in Mosul.

Further studies are recommended to evaluate patients' satisfaction in different hospitals all over the country. This will give a better understanding of the factors that influence patients' satisfaction and to elaborate the mechanisms through which the organizational environment impacts on client's satisfaction.

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