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RESEARCH ARTICLE

PATIENT SATISFACTION DETERMINANTS IN PUBLIC AND PRIVATE OUTPATIENT CLINICS
IN A DEVELOPING COUNTRY

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ABSTRACT

Background

We aimed to assess satisfaction determinants in public and private outpatient clinics.

Methods

We did a cross sectional survey in Soba university hospital outpatient clinic in October 2015. We included all adult patients and companions came to outpatient clinic. We assessed demographic data and patient satisfaction towards private and public hospitals outpatient clinic experience. We used the Patient Satisfaction Questionnaire (PSQ-18) to assess patient satisfaction. We recruited 400 participants randomly and took verbal consent.

Results

Around 58% were females and 42% were males with mean age of 34 years. Around 40% of participants have below average satisfaction towards communication in both public and private clinics, yet, the overall satisfaction was average. Furthermore, only around 20% of participants were dissatisfied with accessibility to both private and public clinics. In contrast, Almost 60% in public and 75% in private clinics were dissatisfied about time spent with doctor. Moreover, time spent with doctor was the most dissatisfactory aspect in both public and private clinics (mean was 1.98 and 2.21 respectively). The technical quality satisfaction was similar (mean=3.42). Patients and companions in public clinics were more content about general satisfaction, finance, and communication compared to experience in private clinics (P values were 0.022, 0.00, and 0.035 respectively), while the reverse is correct for interpersonal manner and time spent with doctor (P<0.001). Rural residents were satisfied more with accessibility of public clinics rather than private ones (P=0.015).

Conclusion

Time spent with doctor is the major concern, whereas having insurance appears to improve satisfaction significantly.

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INTRODUCTION

Patient satisfaction has emerged as a critical outcome of medical care due to increasing emphasis on patients as consumers of medical services in the medical marketplace. The extent to which different medical systems satisfy their patients is a major determinant of viability in this highly competitive environment. Patient satisfaction has been associated with

patient adherence to medical recommendations, willingness to initiate malpractice litigation, doctor shopping, and disenrollment from prepaid health plans (Grant N. Marshal 1994). From the hospital's perspective, clinical staff and managers ought to be interested in patients' views of care because (a) diagnosis and treatment depend on clear communication with and information for patients as well as patient participation in the treatment process (Charles, Gauld et al., 1994). As reported by Wu, Mekoth and Hansen; in the competitive health care industry, the impact of hospital brand image on the attitudes and behaviors of patients towards hospitals has become an important issue (Hansen, 2008;

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Mekoth, 2011; Ahmed Rizwan Raheem, 2014). The definition of patient satisfaction is diverse, although it has been argued that patient satisfaction is an indicator that informs health professionals as to whether patients' needs have been met (Bond, 1996; Williams 2003). Relatively few studies assessed the patient's satisfaction towards healthcare services and its determinants. For instance, in one study comparing quality of care in walk-in clinics and alternative sources of primary care such as family practices and emergency departments, Grant and colleagues found that walk-in centers achieved a significantly higher mean score for overall quality of care than general practices (Brian Hutchison and Eugene Vayda, 2003). Another example is cross-sectional survey of patients attending the Outpatient Dermatology Clinics affiliated to Qassim University where the satisfaction rate for overall quality of dermatology services was 66.1%, a significantly high level of satisfaction was associated with female gender, age below 40, single status, low education, low socioeconomic status and rural residence (Alzolbani, 2011).

During the last century, health systems had by far more focus on giving patients freedom to choose their own health service provider to attain satisfaction. However it's still blur to which degree subjects use this advantage for their own sake, this is also observed in a study conducted in Israel. Another problem is that limited empirical research in this area has been carried out in the Arabic countries for the last two decades & no attempt has been made to measure the quality of health service by empirically investigating patient expectations and perceptions of health services (Ramez, 2012). Additional confrontation is lack of studies comparing quality of care in outpatient clinics and alternative sources of primary care such as family practices and emergency (Brian Hutchison and Eugene Vayda, 2003).

We aimed to study the satisfaction of patients and companions towards outpatient clinic services in public and private hospitals outpatient clinics and highlighted the differences and similarities. We also tried to identify relationships between patient satisfaction and demographic variables like residence, income regularity, income, age, gender, and frequency of visits. In addition, we tested the role of medical insurance on satisfaction towards public and private outpatient clinics.

MTHODOLOGY

We did a cross sectional survey in Soba university hospital outpatient clinic in October 2015. Soba university hospital is one of the largest tertiary hospitals in Sudan. It was established in Soba in southern Khartoum and is the major teaching hospital for university of University of Khartoum medical school. We included all adult patients and companions who came to outpatient clinic. We assessed the demographic data beside the patient satisfaction towards private and public hospitals experience. We used the Patient Satisfaction Questionnaire (PSQ-18) to assess patient satisfaction. The PSQ is a validated structured self-administered questionnaire which was designed to assess the patient satisfaction in seven fields; general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with doctor, and accessibility and convenience. The questionnaire should be interpreted into 5 item scales ranging from 1 that represents lowest satisfaction to 5 that represents maximal satisfaction.

The questionnaire is also valid for participants who didn't receive health care recently (Grant N. Marshal 1994). 'the Patient Satisfaction Questionnaire Short Form (PSQ-18)' has been validated for use in different settings including outpatient clinics (Thayaparan and Mahdi 2013). We recruited 400 participants randomly and took verbal consent. Each participant filled 2 sample of the PSQ, one for his satisfaction towards public outpatient clinics and the other for the private clinics. We analyzed data using SPSS v22. We calculated the percentage and frequencies for categorical variables and mean and standard deviation for numerical data. For testing hypothesis, we compared the mean PSQ scores by using the independent T test, one sample T test, and regression analysis. The P values and confidence intervals (C.I.) were calculated.

RESULTS

Univariate analysis:

a. Demographics:

Table 1 below shows the frequencies of the demographic data of population under study.

B. Degree of satisfaction

The figure (1) and figure (2) below shows the histogram of satisfaction towards communication, financial aspect and time with doctor towards public clinics experience (black bars) and private clinics experience (white bar).

Multivariate analysis

a. Public vs private clinics experience

The table below demonstrates the mean patient satisfaction questionnaire results beside the P value and confidence interval limits of the independent T test.

b. Demographic factors vs satisfaction

Regression analysis between frequency of visits, income, and age and general satisfaction in public clinics experience showed absence of significance association (P value was 0.857, 0.592, and 0.573 respectively). Similarly, there was no significant association between general satisfaction and frequency of visits, income, and age in private clinics (P value was 0.766, 0.284, and 0.536 respectively). Table (3) below illustrates the independent T test results for testing the significance of differences between PSQ scores against subject, gender, income regularity, residence, and insurance.

The table shows that in public clinics there were significant association between:

- Subject and financial aspects
- Gender and general satisfaction.
- Income regularity with financial aspect.
- Residence and accessibility.
- Private clinics insurance with financial aspects.

In public clinics there were significant association between:

- Gender with interpersonal manner, general satisfaction, and accessibility
- Public clinics insurance with general satisfaction, communication, time spent with doctor and financial aspects

Table 1: Descriptive statistics of demographic data

		Column Valid N %	Mean	Standard Deviation
Participants	Patient	48.2%		
	Company	51.8%		
Department	medicine	24.4%		
	pediatrics	19.8%		
	surgery	27.1%		
	Obs. and gynae.	22.4%		
	other	6.3%		
Gender	male	41.7%		
	female	58.3%		
Education level	illetterate	5.0%		
	Khalwa	2.0%		
	primary school	15.5%		
	secondary school	32.5%		
	graduate	39.3%		
Job	postgraduate	5.8%		
	unemployed	51.7%		
	not skilled worker	16.5%		
	skilled worker	9.5%		
	employee	12.6%		
residence	Professional	9.8%		
	urban	57.2%		
public hospitals insurance	rural	42.8%		
	I have	43.2%		
private hospital insurance	I dont have	56.8%		
	I have	9.1%		
income frequency	I dont have	90.9%		
	Regular	31.3%		
Income	Irregular	68.7%	1186.11	1460.84
	Age		34.50	12.20
number of visits			7.86	23.29

Table 2: Independent T test results for the difference between public and private hospital experiences PSQ scores

	public PSQ scores	private PSQ scores	P value	Confidence interval (C.I.)	
	Mean(SD)	Mean (SD)		lower	upper
general satisfaction	3.31(1.02)	3.19(.98)	0.022	0.016	0.21
technical quality	3.42(.79)	3.42(.75)	0.962	-0.79	0.75
interpersonal manner	3.31(.79)	2.77(.90)	0.00	0.46	0.61
communication	3.44(.84)	3.35(.90)	0.035	0.006	0.17
financial aspects	3.02(.97)	2.49(1.04)	0.00	0.43	0.62
time with doctor	1.98(.92)	2.21(.93)	0.00	-0.32	-0.13
accessibility and convenience	2.90(.78)	3.00(.79)	0.013	-0.17	-0.02

DISCUSSION

In general, there were many similarities and differences in satisfaction between the private and public sector. First of all, patients and companions in public clinics had a better general satisfaction and were more content about the interpersonal manners compared to their experience in private clinics. [Arpita Bhattacharya et al.](#) also reported 98.2% patients were satisfied with behavior of doctors in a public clinic which is similar with the present study ([Kulkarni, 2011](#)). Regarding communication, around two fifth of participants have below average satisfaction

in both public and private clinics, yet, the overall satisfaction was average. This percentage was very close to what [Alzolibani](#) discovered, where about 40% of our patients were less satisfied about the information they received about their problems ([Alzolibani, 2011](#)). However, this contradict [Strut et. al](#) who found out that majority of patients were satisfied with treatment, the explanations they received and their perceived health outcomes ([Strutt, Shaw et al., 2008](#)). This finding is also contrasted by a study conducted in India comparing nursing care in private and public clinics, in which satisfaction score

Table 3: The independent T test results

		Subject (patient vs companion)		Gender		Income regularity		Residence		Public clinic insurance		Private clinic insurance	
		P value	C.I.	P value	C.I.	P value	C.I.	P value	C.I.	P value	C.I.	P value	C.I.
Public clinics satisfaction	general satisfaction	0.153	(-0.055, 0.35)	0.016	(-0.454, -0.048)	0.088	(-0.407, 0.029)	0.528	(-0.272, 0.14)	0.00	(0.179, 0.577)		
	technical quality	0.452	(-0.216, 0.097)	0.189	(-0.266, 0.053)	0.485	(-0.227, 0.108)	0.069	(-0.303, 0.012)	0.186	(-0.051, 0.26)		
	interpersonal manner	0.312	(-0.237, 0.076)	0.478	(-0.218, 0.102)	0.824	(-0.188, 0.15)	0.026	(0.021, 0.333)	0.298	(-0.075, 0.242)		
	communication	0.825	(-0.147, 0.185)	0.717	(-0.2, 0.138)	0.793	(-0.155, 0.202)	0.1	(-0.305, 0.027)	0.049	(0.001, 0.332)		
	financial aspects	0.004	(0.088, 0.469)	0.692	(-0.235, 0.156)	0.01	(0.065, 0.476)	0.622	(-0.146, 0.243)	0.012	(0.055, 0.44)		
	time with doctor	0.345	(-0.269, 0.094)	0.014	(0.048, 0.415)	0.057	(-0.006, 0.383)	0.85	(-0.202, 0.167)	0.002	(-0.473, -0.112)		
	accessibility and convenience	0.938	(-0.161, 0.149)	0.504	(-0.211, 0.104)	0.944	(-0.172, 0.161)	0.015	(-0.351, -0.038)	0.727	(-0.184, 0.129)		
Private clinics satisfaction	General Satisfaction	0.794	(-0.221, 0.169)	0.006	(-0.474, -0.081)	0.696	(-0.251, 0.168)	0.295	(-0.302, 0.092)			0.738	(-0.404, 0.287)
	Technical Quality	0.719	(-0.123, 0.177)	0.713	(-0.181, 0.124)	0.534	(-0.11, 0.212)	0.315	(-0.229, 0.074)			0.233	(-0.415, 0.105)
	Interpersonal Manner	0.563	(-0.23, 0.126)	0.035	(0.015, 0.374)	0.995	(-0.191, 0.19)	0.877	(-0.196, 0.167)			0.465	(-0.407, 0.19)
	Communication	0.505	(-0.118, 0.238)	0.91	(-0.172, 0.193)	0.987	(-0.19, 0.193)	0.114	(-0.324, 0.035)			0.177	(-0.539, 0.1)
	Financial Aspects	0.068	(-0.015, 0.395)	0.299	(-0.319, 0.099)	0.191	(-0.074, 0.368)	0.276	(-0.323, 0.093)			0.011	(0.11, 0.835)
	Time Spent With Doctor	0.702	(-0.149, 0.22)	0.609	(-0.139, 0.237)	0.342	(-0.294, 0.102)	0.997	(-0.185, 0.186)			0.168	(-0.096, 0.549)
	Accessibility and Convenience	0.256	(-0.066, 0.247)	0.024	(-0.338, -0.024)	0.091	(-0.312, 0.023)	0.812	(-0.178, 0.139)			0.756	(-0.323, 0.235)

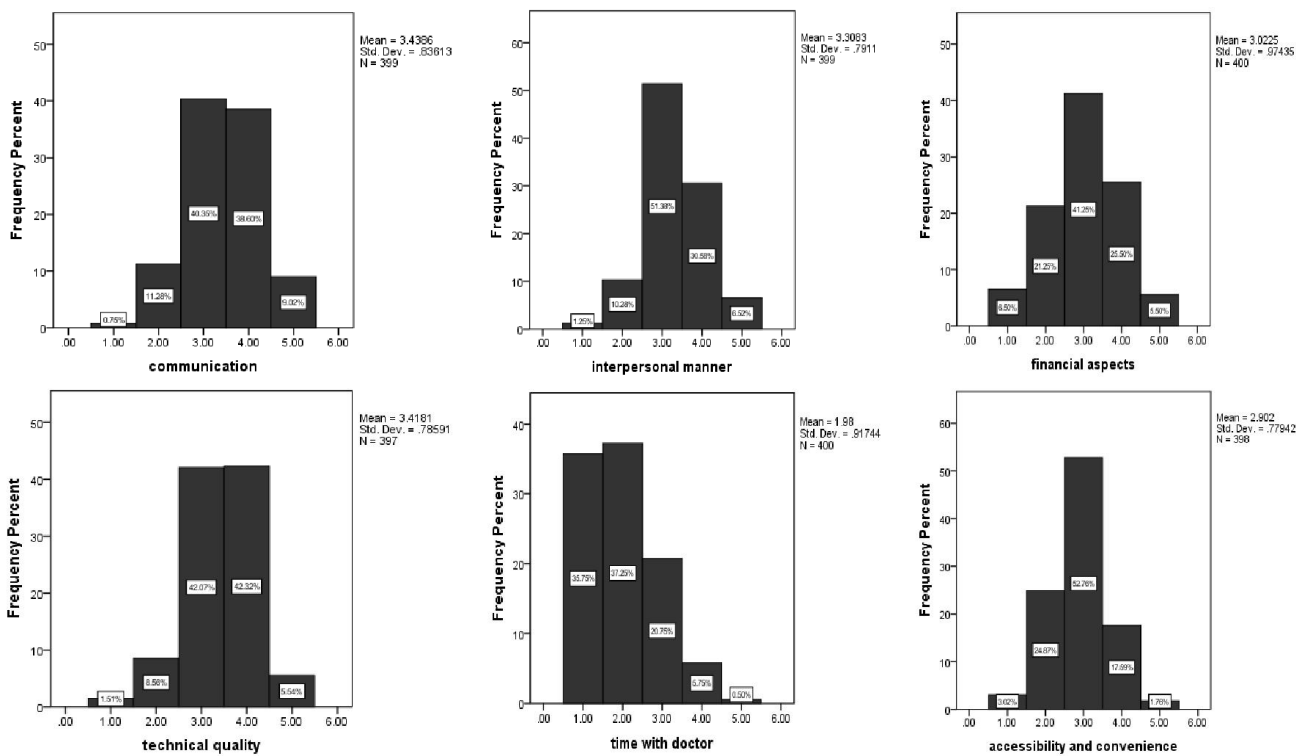


Figure 1: Histogram of satisfaction aspects in public outpatient clinics

for communication in public clinic was 56.9 % compared to 76.8% in private clinics (Suresh K. Sharma, 2013). Furthermore, only around one fifth of participants were dissatisfied with accessibility to both private and public clinics. This is similar to what Qadri et. al found in his study in Benin, where a high proportion of patients were dissatisfied with accessibility of the clinic (Ofili, 2005, Syed Shuja Qadri, 2012). Similarly, Ilyyasu et al. study in 2010 revealed that overall satisfaction of patients with services was more than four fifths, and a high proportion of the patients were also satisfied with the ease of accessing care (Z Ilyyasu, 2010). In contrast, Almost 60% in public and 75% in private clinics were dissatisfied about time spent with doctor. Moreover, time spent

with doctor was the most dissatisfactory aspect in both public and private clinics. This resembles, but exceeds, the reported 48% dissatisfaction ratio reported by Alzolibani (Alzolibani, 2011). On the other hand, satisfaction towards public and private experiences was different in the interpersonal and financial aspect. The interpersonal manner satisfaction was more in the private sector. This may be due to the fact that in many developing countries there are higher salaries and better working environment provided for doctors in the private sector. However, the additional expenses are loaded on patient's shoulders, and this may explain why satisfaction towards financial aspect was significantly higher in the public sector. Finally there was no significant difference in terms of

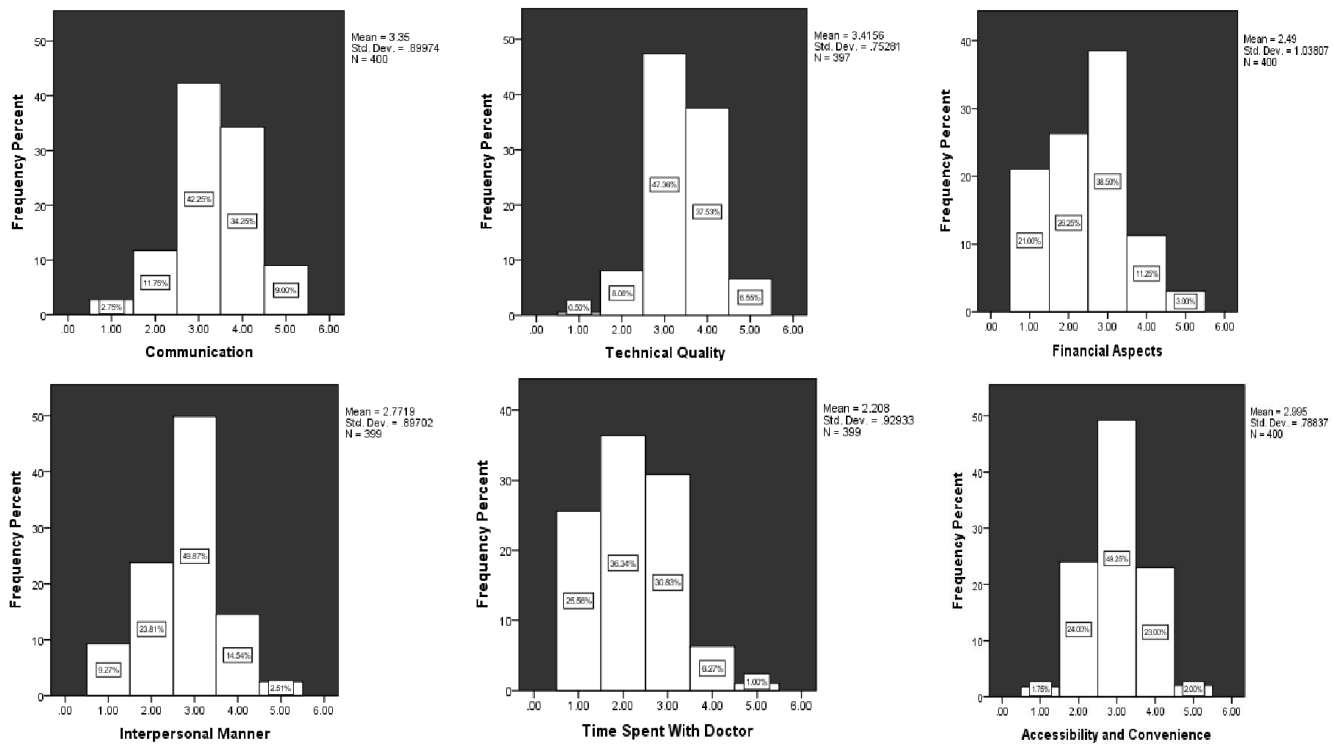


Figure 2: Histogram of satisfaction aspects in private outpatient clinics

satisfaction regarding technical quality between private and public clinics. There was significant association between the demographics and some satisfaction categories. Concerning the private sector; females were more satisfied with accessibility, while males were more satisfied with the interpersonal manner. Females were more satisfied in the general category in both the public and private sectors. In a study accomplished by Margolis, men and women had equal level of satisfaction (Margolis, Al-Marzouqi *et al.*, 2003). Considering the financial aspect in the public sector, patients and those with regular income were more satisfied. In addition, rural residents were more satisfied with the accessibility. Rural residents may be more satisfied due to expectation difference between town and village dwellers.

We found that in public clinics subjects with insurance have quite a relevant association with patient's general satisfaction & financial aspect satisfaction, on the other hand they are less satisfied regarding the communication & time spent with their health providers when compared with subjects without insurance. This agrees with a study conducted in Nigeria that there's a high level of satisfaction (73%) in public clinics which maybe as a result of financial safety & lower charges (Z Iliyasu, 2010). When it comes to private clinics, there was also a strong association between insurance & the financial aspect satisfaction. However, those without insurance are more satisfied with the time they spend with their doctors. Taking these results into consideration, financial aspect satisfaction in both in public & private clinics can be improved by insurance. To conclude, the overall satisfaction towards outpatient clinics was average. In fact, the general satisfaction, communication, interpersonal manner, and finance were better in public clinics, whereas time spent with doctor and accessibility were better in private clinics. Nevertheless, Patients and companions were very dissatisfied from inadequate time spent with doctor in

both private and public clinics. Insurance seems to enhance the satisfaction towards both, the public and private clinics.

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