# Patient Satisfaction – A Comparison between Public & Private Hospitals of Peshawar

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# ABSTRACT

**Introduction:** The concept of patient satisfaction is not new. Patients are one of the main stake holders among the ever expansive modern world of medicine. A wealth of medical literature supports the notion that there have been unprecedented shifts in the traditional "Doctor-Patient" relationship. Patient satisfaction forms an essential component of many policy level decisions. Changes in patient care trends have been seen in developing countries recently. Patient satisfaction is a complex, multidirectional issue that needs to be approached from several different angles.

#### **Objective:**

- 1. To adapt, modify and apply a PSQ for Pakistani patient population based on similar data from Pakistan and other SAARC countries.
- 2. To measure patient satisfaction in two private and three public sector hospitals of Peshawar using a modified "Patient Satisfaction Questionnaire".
- 3. To compare composite scores in seven different categories of Patient Satisfaction between private and public sector hospitals of Peshawar.

**Method:** A cross-sectional comparative study in three private and two public sector hospitals of Peshawar Pakistan was carried out from May'2010 – January'2011. 200 patients were enrolled through convenience sampling. Patients' informed consent was taken for disclosure of personal information. Data was entered in Microsoft Excel 2007 and SPSS V 17 and further analyzed for satisfaction levels and comparison between the two healthcare systems studied. Independent sample T-test was employed for comparison of means.

**Result:** Total 200 patients (100 each from public and private sector hospitals) were interviewed after taking verbal consent. Mean patient satisfaction score in private sector hospitals was 121.94  $\pm$  20.84 which was significantly higher than that of public sector hospitals, which was 104.97  $\pm$  18.51 (p < 0.001). The scores for patient satisfaction in private sectors hospitals are significantly more in comparison with public sector hospitals in all aspects (p < 0.01) except "time spent with doctors" (p = 0.954).

**Conclusion:** In conclusion, patients in private sector hospitals are more satisfied than those in public sector hospitals. Both the groups are equally unsatisfied about the time spent with doctors.

Keywords: Patient satisfaction, hospitals, private sector, public sector

### Introduction

The concept of patient satisfaction is not new. Patients are one of the main stake holders among the ever expansive modern world of medicine. Although the roles of patients and doctors have remained fixed, the contexts and backdrops have undergone tremendous changes overtime. Traditionally, there were no clear boundaries between patient care and patient cure. With changing patterns of disease, newer therapies and patients' perceptions, care and cure are now entirely separate concepts. A patient may never get cured but may feel very well-cared for and vice versa.

A wealth of medical literature supports the notion that there have been unprecedented shifts in the traditional "Doctor-Patient" relationship. Patient satisfaction forms an essential component of many policy level decisions. Some even argue that there is an impending role reversal in context of the new paradigm of "patient-centered care" [1-4]. Current trends in medical ethics, access to medical information and education level of an average patient have substantially contributed to change the face of a modern medical consultation [5]. Patients are better equipped with information, albeit superficial, than ever before about their diseases, therapies that their physicians are prescribing and issues related to side effects and treatment success or failure. New concepts like "patient centeredness", "informed patient consent" and "shared decision making" have been coined and are used by healthcare givers and patients alike. The classic paternalistic role assigned to doctors no longer applies in most developed countries [6].

Similar changes in patient care trends have been seen in developing countries recently. Patient care in developing countries differs from developed countries in several dimensions. Apart from socio-cultural and economic differences between developed and developing countries, their healthcare systems are not comparable in several aspects. Healthcare planning, budgeting, resource allocation, even patient expectations are very different in the two systems, [7].

It was the Alma Ata in 1978, where the concept of "Health for All", [8], was presented and universally embraced by developing countries as the solution to all their healthcare related problems. Although, grass root level improvement was seen in some healthcare sectors, however, an inherent flaw in "Health for All" was overlooked at the time. While it entailed universal accessibility and quantity of healthcare delivered, it overlooked the "quality" of healthcare being delivered at Primary Healthcare Centers(PHCs). Studies have shown that consumers of PHCs in rural Africa did not visit their local centers even for severe illness due to perceived low quality of healthcare at these centers, [9]. Although such studies have shown the need for better

understanding of patient expectations and satisfaction with their healthcare systems, however, patient satisfaction data from developing countries remains scarce.

A pioneering effort in determination of exact mechanisms for primary healthcare service delivery in developing countries was carried out by USAID financed Primary Healthcare Operations Research, PRICOR project from 1985 – 1992. The study was carried out in twelve countries. Over 6000 patient encounters were directly observed. Several multidimensional deficiencies were uncovered in diagnosis, treatment and counseling strategies of primary healthcare personnel [10].

Patient satisfaction is a complex, multidirectional issue that needs to be approached from several different angles, [11]. It is very hard to determine one aspect of patient satisfaction, for example satisfaction with doctor's demeanor, without knowing about level of satisfaction with the quality of time spent with the doctor. Patient outcomes in terms of quality of life and compliance have been linked to level of patient satisfaction, [12]. It is true that despite a wealth of data and at least fifty fully validated patient satisfaction measuring tools that are currently available, no single tool can give a complete picture of how an individual patient feels about his or her doctor or the system as a whole. [13]

There have been several efforts to quantitatively measure patient satisfaction in Pakistani patients, [14, 15]. The authors carried out a meticulous search for any local studies that were aimed at developing a valid tool for measuring patient satisfaction and were unable to find any such study. Studies from Karachi, [14, 15] as well as Peshawar, [16] either used patient satisfaction inventories used in developed countries or self-prepared non-validated questionnaires. Keeping our social and cultural backgrounds in view, it is not hard to understand the limited role that these "foreign" or non-validated tools for measuring patient satisfaction will have in our medical system.

Not much work has been done to compare the patient satisfaction level in public and private sector hospitals. This study hopes to generate data that can help doctors and managers to improve the standard of care.

# Material and Method

It was a cross-sectional comparative study in three private and two public sector hospitals of Peshawar from May'2010 – January'2011. 200 patients were enrolled through convenience sampling. All the consenting patients above 16 years of age were included in the study.

A search under keywords, "Patient satisfaction questionnaire" was carried out on MEDLINE, COCHRANE and EMBASE. Twenty seven research studies and five systematic reviews were selected. Six patient satisfaction questionnaires, two from UK, [17, 18], one from India, [19], one from Saudi Arabia, [20] and two from USA, [21, 22], were chosen for developing our data collection tool. Our first priority was to have a reliable tool—that is, the random error of responses must be minimized so that consistency of measurement is achieved. The questionnaire

had to be valid—that is, it was to be a true measure of what it purports to measure and must not be subject to bias.

Patient satisfaction tools are further classified as global, measuring overall or general satisfaction: multidimensional, measuring satisfaction with different aspects of patient health and the care received; and disease-specific, such as for low back pain, or generic, appropriate for any patient. Satisfaction measures are also classified as direct, measuring the actual experience of a patient in a clinic or study, or indirect, measuring a patient's attitude about their health or care.

We included global (general satisfaction with care) as well as multidimensional statements (financial, time spent waiting, time spent with doctor, communication skills, technical quality and empathy) in our patient satisfaction questionnaire (PSQ). Questions were bidirectional and both direct and indirect in nature. A 5-point Lickert scale was applied for scoring depending on patient's agreement or disagreement with a statement. This modified PSQ was then translated into Urdu and Pashto and pre-tested by the investigators on each other. Total of three pre-validation testing rounds were completed by the investigators with volunteers through patient interviews, both in patients and out patients. A final revision was agreed upon and printed for study purposes.

Informed consent was taken from every patient before interview. Patient anonymity and confidentiality were assured in PSQ Disclaimers and institutional heads were also assured of confidentiality of their names in final results.

Data was entered in Microsoft Excel 2007 and SPSS V 17 and further analyzed for satisfaction levels and comparison between the two healthcare systems studied. Independent sample T-test was employed for comparison of means.

# Limitations

The study was carried out only in Peshawar and therefore we may not be able to generalize its conclusions to the whole country. Furthermore, convenience sampling was employed. The time frame of the study was short and lack of manpower and resources was a constraint. Moreover, we were unable to define a cut-off score above which we could label a patient as satisfied.

# Results

A total 200 patients (100 each from public and private sector hospitals) were interviewed after taking verbal consent. Mean patient satisfaction score in private sector hospitals was 121.94  $\pm$  20.84 which was significantly higher than that of public sector hospitals, which was 104.97  $\pm$  18.51 (p < 0.001). Socio-demographic characteristics of the sample are given in table 1. The mean waiting time in private sector was  $61.43 \pm 38.45$ min and that in the public sector hospitals was 85.86  $\pm$  28.99min. The mean waiting time in public sector hospitals was 85.86  $\pm$ 

28.99min and was significantly more than that of in the private sector hospitals which was 61.43  $\pm$  38.45min (p < 0.001).

Independent Sample T-test was applied to check for the significance of difference in each aspect among public and private sector Hospitals. Satisfaction level was assessed in areas of Access/Availability/Convenience, Communication with the doctor, Financial Aspect, General Satisfaction, Empathy, Time spent with the doctor and Technical quality. Private sector hospitals showed an overall better level of satisfaction (p < 0.01) in all aspects except for "Time Spent with the doctors" which was nearly similar in both the cases (p=0.954). Table 2 gives a comparison in all categories of patient satisfaction.

# Discussion

Healthcare is fast becoming consumerist industry all over the world. Deep rooted involvement of diagnostic services; treatment technology and pharmaceutical industry have changed the face of healthcare in 21st century. Today, the patients are much more aware and informed about their diseases compared to most healthcare givers. It is, therefore, vital to know exactly what our patients expect of us as their healthcare providers in order to practice according to the need of the day; in addition to ethically correct medicine.

The present study was undertaken to assess the level of patient satisfaction in various service and non-service areas in private and public sector hospitals.

Our data gathering tool was a modified PSQ which was developed by the investigators after an intensive literature review.

Mean patient satisfaction score in public sector hospitals was  $104.97 \pm 18.508$  and in private sector hospital was  $121.94 \pm 20.839$ . It is not possible to assign a "Level" of satisfaction to these scores. We did not find any studies using comprehensive PSQs addressing a multidimensional range of patient care areas that lead to a numerical score. We were thus, unable to have a cut off value above which a patient could be labelled as "satisfied".

Although, Masood Jawaid et al used a 10-point anchored scale pro forma in surgical OPD of Civil Hospital, Karachi, however, their results do not indicate any cut-off scores to indicate satisfied vs. unsatisfied patients [23].

They included general conditions in OPD, doctor's attitude, ethical behaviour, professionalism and demographic variables in their study. Their study was conducted in a busy surgical OPD in a public sector hospital. They showed a significantly high level of general satisfaction compared to our result. Their study result showed 75% satisfied patients. They arbitrarily chose mean scores as a cut off above which patients were considered satisfied. If we apply a similar criterion, our scores show 68% satisfied patients in private sector versus 46% satisfied patients in public sector hospitals. [23]. Average waiting time in their study was 47.47 $\pm$ 15.29min. The mean waiting time in our study was 61.43  $\pm$  38.45min and 85.86  $\pm$  28.99min in private and public sector

hospitals respectively. These timings are different from the study in question but we have to keep in mind the fact that we used a different tool than the study in question.

Sardar Zakariya Imam did a similar study in Aga Khan University Teaching Hospital, Karachi. They used a partially modified and translated Patient Satisfaction Scale developed by Picker Institute of Europe for NHS. The scale addresses "events" that contribute to decreased or adverse patient satisfaction [24]. It was felt by the investigators in our study that pointing to negative events contributed to a biased and negative effect on over all patient satisfaction in subjects.

Anjum performed patient satisfaction analysis on out patients in PIMS, Islamabad. He used a self-developed patient satisfaction inventory. He used a Yes/No scale for some areas of patient satisfaction while for more complex areas like "Total experience and perception concerning OPD healthcare services" he assigned an arbitrary cutoff of "mean and above". Mean scores were calculated for patient responses and cut off was kept at the mean level [25].

As for the constructs of patient satisfaction addressed in our study, we included questions addressing Access/Availability/Convenience, Communication with the doctor, Financial Aspect, General Satisfaction, Interpersonal manner, Time spent with the doctor and Technical quality of healthcare.

Anjum Jawaid used multiple aspects of patient satisfaction for analysis centered around registration staff, doctors, nurses, pharmacists and general environment. Once again, he was analysing patient satisfaction in PIMS, Islamabad, another busy public sector hospital [25].

We were able to find only one comparable study conducted on private sector hospitals in Pakistan. S.M. Irfan of COMSATS, Lahore performed an exhaustive analysis of patient satisfaction [26]. Their data gathering tool was a modified form of SERVQUAL. It comprised of 22 variables representing five service quality dimensions; empathy, tangible, assurance, timeliness and responsiveness. Study was conducted in private sector hospitals in Lahore. The authors of this study circumvented the problem of lack of pre-existing data by developing five research hypotheses. Each hypothesis claimed that there existed a positive relationship between service quality and a pre-selected dimension of patient satisfaction that they were analysing. Each hypothesis was then statistically tested for strength of relationship. Although an elegant research methodology, their results reflect adequate level of patient satisfaction among private healthcare patients. This is in line with our results since we found significantly higher levels of patient satisfaction in all areas under investigation except "time spent with doctor" for private sector patients.

Despite exhaustive search, the authors were not able to find any study which compared Public and Private Sector Hospitals in Pakistan. This placed us in a hard spot when we attempted to compare our results with any precedents. In our study, we found out that patient-satisfaction scores were significantly higher in the private sector hospitals.

Out of the seven different patient satisfaction sub-categories in our study, only "time spent with doctor" did not show any significant difference. All the other categories showed significantly higher satisfaction scores for private sector hospitals compared with public sector hospitals.

### Conclusion

Patients who receive their medical care in private sector hospitals are more satisfied compared with patients who receive their care in public sector hospitals.

Further studies using modified PSQ need to be carried out on larger scale of patients to provide valid and replicable cut off limits defining patient satisfaction in Pakistan.

Average waiting time both for private and public sector hospitals need to be reduced through institution of effective and quick patient flow protocols.

Conflict of Interest: None declared.

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Socio-demographic characteristics of the sample				
Characteristics	<b>Public Sector</b>	<b>Private Sector</b>		
Age (yrs)				
Mean	45.02	37.86		
Standard Deviation (SD)	14.89	16.01		
Min	18	16		
Max	80	75		
Gender (N)				
Male	57	44		
Female	43	56		
Marital Status (N)				
Single	16	38		
Married	84	62		
Education (N)				
Illiterate	79	60		
Under Matric	3	3		
Matric	10	20		
<b>Matric - Graduation</b>	8	17		

Table 1: Socio-demographic characteristics of the sample

Characteristics	Public Sector	Private Sector	<i>p</i> -value
	Mean $\pm$ SD	Mean $\pm$ SD	
Total PSQ Score	$104.97 \pm 18.51$	$121.94 \pm 20.84$	< 0.001
Access / Availability / Convenience	$15.83 \pm 4.51$	$18.33 \pm 4.59$	< 0.001
Communication	$23.37 \pm 6.22$	$28.09 \pm 5.64$	< 0.001
Financial Aspect	$9.96 \pm 4.93$	$13.94 \pm 4.45$	< 0.001
General Satisfaction	$20.63 \pm 4.6$	$22.36 \pm 4.95$	0.011
Interpersonal Manners	$19.51 \pm 4.66$	$21.73 \pm 5.07$	0.001
Time Spent with Doctor	9.27 ± 2.36	$9.29 \pm 2.51$	0.954
Technical Quality	$6.4 \pm 2.24$	$8.20 \pm 2.42$	< 0.001

Table 2: Comparison of patient satisfaction scores