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THE IMPACT OF HOSPITAL ACCREDITATION ON THE PATIENTS  
SATISFACTION OF OUT-PATIENT DEPARTMENT SERVICES

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**ABSTRACT**

Patient satisfaction is considered a way of measuring the quality of services provided for improvement. **Objectives:** To study the impact of National Accreditation Board for Hospitals & Healthcare Providers (NABH) Accreditation, India on Out-Patient Department Service patient satisfaction. **Methods:** It is a quantitative, descriptive and inferential research based case study in which sample of a population was studied by structured satisfaction survey questionnaires (before and after the accreditation) in a private tertiary care hospital at Secunderabad, Telangana State, India to determine its characteristics, and it is then inferred that the population has the same or different characteristics. **Significance of Research:** It was observed initially before the accreditation that there was a lower patient satisfaction rate of the hospital Out-Patient Department Services, which was affecting the study hospitals' business. **Hypothesis:** Null Hypothesis (Ho) and Alternative Hypothesis (H1) were used and tested to compare the before and after impact of accreditation by applying to each question in the questionnaire. **Study Design:** The closed ended questionnaire was developed considering the Out-Patient Department Services by incorporating the six dimensions of quality Safe, Timely, Effective, Efficient, Equitable, and Patient-centred (STEEP) and tested prior to implementing. Questionnaires were given to the patients' families for completion upon using the Out-Patient Department Services two months before and two months after the accreditation. The data were collected in order to cover all three shifts of the Out-Patient Department Services. **Study Population:** Simple random sampling method was selected, the researcher had involved all conscious patients (clinical conditions) from all age groups. **Data Collections:** Primary data were collected from the survey questionnaires. Secondary data were collected from relevant published journals, articles, research papers, academic literature and web portals. **Conclusion:** The chi-square test performed at the 5 % level of significance indicates that, there is

a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of overall experience with OPD ( $p < 0.001$ ). The satisfaction score has improved from before accreditation compared to after accreditation which indicated that the accreditation has a positive impact on the satisfaction of Out-Patient Department Services of the study hospital.

**Key words:** Patient Satisfaction, National Accreditation Board for Hospitals & Healthcare Providers (NABH) Accreditation, Out-Patient Department Services

## INTRODUCTION

Quality has become a fundamental requirement for all healthcare organizations in order to survive and succeed in this competitive, demanding and challenging healthcare service industry. Today, developed and developing nations are working towards continuous quality improvement and patient safety by achieving the national and or international healthcare accreditation and providing safe, effective, patient-centred, timely, efficient and equitable health care services to all their patients, families and caretakers. Accreditation of a health care organization is an external evaluation of the level of compliance against a set of organizational standards. Healthcare accreditation standards are advocated as an important means of improving structure, process and outcome. <sup>i</sup>

## REVIEW OF LITERATURE

The increased international focus on improving patient outcomes, safety and quality of care has led stakeholders, policy makers and health care provider organizations adopt standardized processes for measuring health care systems. Patient satisfaction has become a key criterion by which the quality of health care services is evaluated. The literature emphasizes that patients who are satisfied with the provision of health care tend to be more compliant to their treatment plan, maintain their follow up visits; and are more willing to recommend the hospital to others.<sup>ii</sup> The literature emphasizes that hospital accreditation and patient satisfaction are both considered important quality indicators of healthcare delivered.<sup>iii</sup> The results of patient satisfaction surveys can be used to monitor the quality of health care provided,<sup>iv</sup> to find out any shortages, to provide the necessary interventions, and as a valuable source of strategic planning of healthservices.<sup>v</sup>

## DATA ANALYSIS

**Table1. Patient participation before and after accreditation**

Group	Frequency	Percentage
Before Accreditation	500	50
After Accreditation	500	50
Total	1000	100

Table 1 depicts that there were 500 patients participated before accreditation and 500 patients participated after accreditation. There is no improvement in the participation of patients after accreditation.

**Table2. Group and age distribution**

Group	Age					Chi-square test statistic, p-value
	<17 yrs	17-25 yrs	25-55 yrs	55-65 yrs	>65 yrs	
Before Accreditation	51	128	149	118	54	0.916, 0.922
After Accreditation	48	132	139	128	53	
Total	99	260	288	246	107	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between age and the participation of patients before and after accreditation.

**H<sub>1</sub>:** There is a significant difference between age and the participation of patients before and after accreditation.

Table 2 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is no significant difference between age and the participation of patients before and after accreditation ( $p\text{-value} > 0.05$ ). Hence  $H_0$  is accepted and  $H_1$  is rejected.

**Table3. Group and gender distribution**

Group	Gender		Chi-square Test statistic, p-value
	Male	Female	
Before Accreditation	228	272	1.604, 0.205
After Accreditation	248	252	
Total	476	524	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between gender and the participation of patients before and after accreditation.

**H<sub>1</sub>:** There is a significant difference between gender and the participation of patients before and after accreditation.

Table 3 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is no significant difference between gender and the participation of patients before and after accreditation ( $p\text{-value} > 0.05$ ). Hence  $H_0$  is accepted and  $H_1$  is rejected.

**Table4. Group and geographical states (in India) distribution**

Group	Geographical states		Chi-square Test statistic, p-value
	Same State	Other States	
Before Accreditation	295	205	0.066, 0.797
After Accreditation	299	201	
Total	594	406	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between geographical states and the participation of patients before and after accreditation.

**H<sub>1</sub>:** There is a significant difference between geographical states and the participation of patients before and after accreditation.

Table 4 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is no significant difference between geographical states and the participation of patients before and after accreditation ( $p > 0.05$ ). Hence  $H_0$  is accepted and  $H_1$  is rejected.

**Table 5. Group and language distribution**

Group	Language		Chi-square Test statistic, p-value
	Telugu	Non Telugu	
Before Accreditation	315	185	0.068, 0.749
After Accreditation	311	189	
Total	626	374	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between language and the participation of patients before and after accreditation.

**H<sub>1</sub>:** There is a significant difference between language and the participation of patients before and after accreditation.

Table 5 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is no significant difference between language and the participation of patients before and after accreditation ( $p > 0.05$ ). Hence  $H_0$  is accepted and  $H_1$  is rejected.

**Table 6. Group and visit of patients before and after accreditation**

Group	Visit		Chi-square Test statistic, p-value
	First	Second	
Before Accreditation	360	140	0.123, 0.726
After Accreditation	355	145	
Total	715	285	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between first and second visits of patients and their participation before and after accreditation.

**H<sub>1</sub>:** There is a significant difference between first and second visits of patients and their participation before and after accreditation.

Table 6 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is no significant difference between first and second visits of patients and the participation before and after accreditation ( $p > 0.05$ ). Hence  $H_0$  is accepted and  $H_1$  is rejected.

**Table 7. Group and type of visit distribution**

Group	Type of visit			Chi-square Test statistic, p-value
	In Patients	Out Patients	Emergency Department	
Before Accreditation	302	0	198	6.251, 0.000
After Accreditation	0	322	178	
Total	302	322	376	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between the type of visit and the participation of patients before and after accreditation.

**H<sub>1</sub>:** There is a significant difference between the type of visit and the participation of patients before and after accreditation.

Table 7 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between the type of visit and the participation of patients before and after accreditation ( $p < 0.001$ ). Hence  $H_0$  is rejected and  $H_1$  is accepted.

**Table 8. Type of payment and group of patients**

Group	Type of payment			Chi-square Test statistic, p-value
	Cash	Insurance	Government	
Before Accreditation	195	285	20	1.759, 0.415
After Accreditation	175	305	20	
Total	370	590	40	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between type of payment and the participation of patients before and after accreditation.

**H<sub>1</sub>:** There is a significant difference between type of payment and the participation of patients before and after accreditation.

Table 8 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is no significant difference between type of payment and the participation of patients before and after accreditation ( $p > 0.05$ ). Hence  $H_0$  is accepted and  $H_1$  is rejected.

**Table9. Responses on parking facilities of the patient participating before and after accreditation**

Group	Parking facilities					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	68	81	34	162	155	1.175, 0.000
After Accreditation	10	18	15	255	202	
Total	78	99	49	417	357	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between group of patients participating before and after accreditation and their satisfaction levels of parking facilities.

**H<sub>1</sub>:** There is a significant difference between group of patients participating before and after accreditation and their satisfaction levels of parking facilities.

Table 9 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of parking facilities ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table10. Responses on staff's willingness to help the patient participating before and after accreditation**

Group	Willingness of staff to help					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	77	95	30	159	139	1.346, 0.000
After Accreditation	12	18	18	246	206	
Total	89	113	48	405	345	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on staff's willingness to help them.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on staff's willingness to help them.

Table 10 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on staff's willingness to help them ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table11. Satisfaction level in a registration process with the patient participating before and after accreditation**

Group	Registration process					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	71	91	25	152	161	1.158, 0.000
After Accreditation	10	24	12	210	244	
Total	81	115	37	362	405	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels in the registration process.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels in the registration process.

Table 11 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels in the registration process. H<sub>0</sub> is rejected and H<sub>1</sub> is accepted.

**Table12.Satisfaction level of courtesy of staff with the patient participating before and after accreditation**

Group	Courtesy of staff					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	72	91	41	158	138	1.446, 0.000
After Accreditation	17	10	17	221	235	
Total	89	101	58	379	373	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on courtesy of the staff at the reception.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on courtesy of the staff at the reception.

Table 12 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on courtesy of the staff at the reception ( $p < 0.001$ ). H<sub>0</sub> is rejected and H<sub>1</sub> is accepted.

**Table13.Satisfaction level on waiting time of appointment with a physician with the patient participating before and after accreditation**

Group	Waiting time					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before	58	81	30	184	147	

Accreditation						83.472, 0.000
After Accreditation	8	27	21	235	209	
Total	66	108	51	419	356	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on waiting time.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on waiting time.

Table 13 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on waiting time of appointment with a physician ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 14. Satisfaction level on informing the delay in treatment to patients participating before and after accreditation**

Group	Informing the delay in treatment					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	68	83	27	178	144	1.066, 0.000
After Accreditation	17	15	12	251	205	
Total	85	98	39	429	349	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on informing the delay in treatment.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on informing the delay in treatment.

Table 14 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on informing the delay in treatment ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 15. Satisfaction level of choice in appointment time given to patients participating before and after accreditation**

Group	Choice in appointment time					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	81	78	26	172	143	1.088, 0.000
After Accreditation	16	18	15	260	191	
Total	97	96	41	432	334	



**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels of choice in the appointment time.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of choice in the appointment time.

Table 15 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of choice in appointment time ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 16. Satisfaction level of choice of service as per the needs of patients participating before and after accreditation**

Group	Choice of service					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	65	72	38	180	145	1.006, 0.000
After Accreditation	16	14	15	260	195	
Total	81	86	53	440	340	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on choice of service.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on choice of service.

Table 16 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on the choice of service provided as per the need of patients and their family ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 17. Satisfaction level in designing of consultation for patient participating before and after accreditation**

Group	Designing of consultation					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	61	85	27	170	157	86.993, 0.000
After Accreditation	19	19	15	249	198	
Total	80	104	42	419	355	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels in designing of consultation.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels in designing of consultation.

Table 17 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels in designing of consultation ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.



**Table 18. Satisfaction level of overall assistance provided by nurses for patient participating before and after accreditation**

Group	Overall assistance					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	67	87	31	164	151	1.051, 0.000
After Accreditation	15	20	19	268	178	
Total	82	107	50	432	329	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels of overall assistance provided by nurses.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of overall assistance provided by nurses.

Table 18 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of overall assistance provided by nurses ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 19. Satisfaction level on healthcare advice provided by a physician for patient participating before and after accreditation**

Group	Healthcare advice					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	67	86	30	170	147	1.094, 0.000
After Accreditation	13	17	18	246	206	
Total	80	103	48	416	353	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on healthcare advice provided by a physician.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on healthcare advice provided by a physician.

Table 19 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on healthcare advice provided by a physician ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 20. Satisfaction level of explanation of test result given by a healthcare provider for patient participating before and after accreditation**

Group	Explanation of test results					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before	63	77	26	176	158	

Accreditation						91.826, 0.000
After Accreditation	11	24	11	210	244	
Total	74	101	37	386	402	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on explanation of test result given by healthcare provider.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on explanation of test result given by healthcare provider.

Table 20 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on explanation of test result given by healthcare provider ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 21. Satisfaction level of treatment received by patients participating before and after accreditation**

Group	Treatment received					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	67	92	26	177	138	1.257, 0.000
After Accreditation	12	15	17	221	235	
Total	79	107	43	398	373	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels of treatment received.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of treatment received.

Table 21 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of treatment received ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 22. Satisfaction level of printed information provided to the patient participating before and after accreditation**

Group	Printed information					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	77	80	32	166	145	1.147, 0.000
After Accreditation	14	20	16	205	245	
Total	91	100	48	371	390	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels of printed information.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of printed information.

Table 22 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of printed information provided to them ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 23. Satisfaction level on healthcare provider's dissemination of information about the benefits and the risk of surgery to patients participating before and after accreditation**

Group	Risk of surgery					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	66	87	27	171	149	1.099, 0.000
After Accreditation	16	14	18	216	236	
Total	82	101	45	387	385	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on knowing the risk of surgery.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on knowing the risk of surgery.

Table 23 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on knowing the risk of surgery ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 24. Satisfaction level of the information given on diet restriction to patient participating before and after accreditation**

Group	Diet restriction					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	60	85	31	171	153	93.994, 0.000
After Accreditation	15	20	16	215	234	
Total	75	105	47	386	387	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels of information given on diet restriction.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of information given on diet restriction.

Table 24 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of information given on diet restriction ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 25. Satisfaction level for the confidence of a healthcare provider to patient participating before and after accreditation**

Group	Confidence of healthcare provider					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	68	81	24	191	136	1.145, 0.000
After Accreditation	17	12	15	215	241	
Total	85	93	39	406	377	

**Hypothesis:**

$H_0$ : There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels of confidence of healthcare provider.

$H_1$ : There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of confidence of healthcare provider.

Table 25 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of confidence of healthcare provider treating the patient during the consultation visit ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 26. Satisfaction level of privacy given to patients participating before and after accreditation**

Group	Privacy					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	76	85	23	168	148	1.258, 0.000
After Accreditation	13	12	21	221	233	
Total	89	97	44	389	381	

**Hypothesis:**

$H_0$ : There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on privacy given to them.

$H_1$ : There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on privacy given to them.

Table 26 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on privacy given to them ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 27. Satisfaction level of compassion given in the outpatient department to patients participating before and after accreditation**

Group	Compassion given in the outpatient department					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	76	85	23	168	148	1.083, 0.000
After Accreditation	15	20	18	204	243	
Total	91	105	41	372	391	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on compassion given in the outpatient department.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on compassion given in the outpatient department.

Table 27 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on compassion given in the outpatient department ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 28. Satisfaction level of cleanliness and safety of the environment provided to patients participating before and after accreditation**

Group	Cleanliness					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	71	78	26	182	143	86.155, 0.000
After Accreditation	20	20	16	223	221	
Total	91	98	42	405	364	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on cleanliness and safety of the environment.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on cleanliness and safety of the environment.

Table 28 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on cleanliness and safety of the environment ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 29. Satisfaction level of the process laid down by the hospital in the outpatient department to patients participating before and after accreditation**

Group	Process in OPD					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	68	79	37	182	134	1.386, 0.000
After Accreditation	9	15	9	236	231	
Total	77	94	46	418	365	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels on process laid down by the hospital in the outpatient department.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on process laid down by the hospital in the outpatient department.

Table 29 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels on process laid down by the hospital in the outpatient department ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**Table 30. Satisfaction level of overall experience with OPD of patient participating before and after accreditation**

Group	Overall experience with OPD					Chi-square Test Statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	55	81	35	178	151	1.092, 0.000
After Accreditation	12	12	15	240	221	
Total	67	93	50	418	372	

**Hypothesis:**

**H<sub>0</sub>:** There is no significant difference between groups of patients participating before and after accreditation and their satisfaction levels of overall experience with OPD.

**H<sub>1</sub>:** There is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of overall experience with OPD.

Table 30 depicts that the chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of overall experience with OPD ( $p < 0.001$ ).  $H_0$  is rejected and  $H_1$  is accepted.

**CONCLUSION**

The chi-square test performed at the 5 % level of significance indicates that, there is a significant difference between groups of patients participating before and after accreditation and their satisfaction levels of overall experience with OPD ( $p < 0.001$ ). The satisfaction score has improved from



before accreditation compared to after accreditation which indicated that the accreditation has a positive impact on the satisfaction of Out-Patient Department Services of the study hospital.

**LIMITATIONS OF THE STUDY:** This study is limited to the Out-Patient Department Services of the study hospital and for a limited duration (before two months and after two months of accreditation) only.

**DIRECTIONS FOR FUTURE RESEARCH:** In future such research should be conducted to study the impact of national and international accreditations on the other services of the hospitals over a large period of time.

**SOURCES OF FUNDING FOR THE STUDY:** This research was self financed by the author himself.

**IMPLICATIONS OF THE FINDINGS:** The accreditation has a positive impact on the satisfaction of Out-Patient Department Services of the study hospital.

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