

Perception of Hospital Accreditation Impact among Quality Management Professionals in India: A Survey-Based Multicenter Study

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Source of Support: None. Conflict of Interest: None.

Received: Dec 7, 2020; Revision Received: Feb 13, 2021; Accepted: Mar 9, 2021

Joseph L, Agarwal V, Raju U, et al. Perception of hospital accreditation impact among quality management professionals in India: a survey-based multicenter study. *Glob J Qual Saf Healthc.* 2021; 4:58–64. DOI: 10.36401/JQSH-20-44.

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ABSTRACT

Introduction: Accreditation ensures the standard of healthcare, yet accreditation effects on service quality are much debated. Some perceive it as improving quality and organizational performance, whereas others see it as overly bureaucratic and time-consuming, so adding it has limited advantage. The aim of the present study was to understand the perception of hospital staff working in quality management (i.e., doctors, nurses, and administrators) on accreditation, and determine whether years of accreditation have had any impact on their perception. **Methods:** This was a cross-sectional, descriptive, data-based study initiated by the Consortium of Accredited Healthcare Organizations. It consisted of primary data obtained in form of responses to a 30-item questionnaire and collected from 415 respondents. A probability (p) value of less than 0.05 was considered statistically significant. **Results:** For all 30 items, a significantly greater number of participants had a favorable response ($p < 0.001$). A greater number of administrators, as compared with doctors and nurses, responded positively on the impact of accreditation ($p < 0.05$). Participants from hospitals with 1–4 years of accreditation, as compared with participants from hospitals with 4–12 years of accreditation, gave a favorable response ($p < 0.05$). **Conclusion:** One of the most important hurdles to implementing accreditation programs is the dilemma of healthcare professionals, especially senior hospital staff, regarding the positive impact of accreditation. The need to educate healthcare professionals about the potential benefits of accreditation, which should resolve any cynical attitude of healthcare professionals towards accreditation, is of utmost importance.

Keywords: hospital accreditation, healthcare services, patient safety, benefits of accreditation

INTRODUCTION

Per the World Health Organization (WHO), increasing patients' expectations, ensuring the safety of patients and staff, and improving quality have become important objectives for all national health systems in developed and developing countries. The demand for quality in healthcare services has risen due to various market forces such as medical tourism, insurance, corporate growth, and competition. Achieving a high-quality health system is a complicated journey; however, low standards put patients at risk. One WHO study showed that the

highest incidence of hospital infections in Southeast Asia is 10%, and in Eastern Mediterranean the incidence is 11.8%, which is the highest.^[1] Countries have used distinct approaches and built upon lessons learned along the way. Several wealthy industrialized countries have had measurable success advancing the quality of healthcare provided to their people. In contrast, many developing countries are still endeavoring to identify and implement robust strategies to promote quality healthcare.^[2] The expectations of the consumer for best quality has also risen, which has led to the introduction of national and international accreditation bodies to act

as a quality assurance mechanism, thus enhancing customers' access to better healthcare services.

Hospital accreditation is an effective way to evaluate the quality of a hospital and an important tool for improving the standards of the hospital. Accreditation is a long-term process that demands commitment of the entire organization. The healthcare professional's skepticism about the positive impact of accreditation programs is the most important barrier to implementation.

The National Accreditation Board for Hospitals and Healthcare Providers (NABH) defines hospital accreditation as "a public recognition by a national or international healthcare accreditation body, of the achievement of accreditation standards by a healthcare organization, demonstrated through an independent external peer assessment of that organization's level of performance in relation to the standards." Hospital accreditation has also been defined as "a self-assessment and external peer assessment process used by healthcare organizations to accurately assess their level of performance, in relation to the established standards and to implement ways to continuously improve."^[3,4] Accreditation is not just about setting standards; there are analytic, counseling, and self-improvement elements to the process.^[5] The accreditation bodies existing in India include the International Standards Organization, NABH, Joint Commission International, and National Accreditation Board for Testing and Calibration Laboratories.

These accreditation organizations gauge the regulations, safety guidelines, and practices of the healthcare units.^[6] There are several issues that run parallel in evidence-based medicine, quality assurance, and medical ethics. The reduction in medical error is a crucial part of the accreditation process. Hospital accreditation is, therefore, a vital component in the maintenance of patient safety. However, there are few data supporting the effectiveness of accreditation programs.^[7]

Accreditation ensures the standard of healthcare, yet accreditation effects on service quality are much debated. Healthcare providers argue that accreditation is rigorous, improves quality, and helps staff organize and strengthen patient safety efforts.^[8] One of the factors affecting the implementation of hospital accreditation programs is the acceptance of accreditation standards by hospital staff, in terms of professional and cultural norms across the local region. Collaboration is essential among teaching institutes, hospitals, and universities. Their synergistic role in introducing the concepts of accreditation standards and continuous improvement evoke realization among healthcare experts of the necessity of professional standards that are audited through the accreditation programs.^[9]

There is a difference in the perception amongst healthcare professionals about the utility of accreditation. Some perceive it as improving quality and organizational performance, whereas others see it as overly bureaucratic and time-consuming, so adding it has limited advantage.^[10,11] Many factors influence such

perceptions such as the type of staff member (e.g., doctors, nurses, and administrators),^[12] accreditation program, and context.^[13] Amongst healthcare managers and administrators, accreditation has been reported as negative, offering little value for its time and cost,^[14] and as positive for promoting quality, good practices, and uniting staff by integrated efforts in treatment and quality care.^[15] Others pursue it as a marketing tool^[16] or a legitimization of their right to intervene in patient care.^[17] Perceptions of accreditation amongst healthcare professionals and those in management and administrative roles are likely to influence the success of accreditation programs.^[18,19]

Previous literature^[20] shows that nursing staff, technicians, and support staff are the most responsive to the constant stimulation of accreditation programs, while medical faculty are slow to embrace the change.

With the above background, this research was initiated to determine the following in the Indian context:

1. Perception of hospital staff (i.e., doctors, nurses, and administrators) on accreditation;
2. Perception of the staff of accredited hospitals on the impact of accreditation; and
3. Whether years of hospital accreditation have had any impact on staff perception.

METHODS

This was a cross-sectional, descriptive, and simple random sampling methodology-based study involving primary data obtained from hospital staff of hospitals located in the states as well as the union territories of India. The Consortium of Accredited Healthcare Organizations (CAHO) initiated the study with all the member organizations, which are accredited. The study was conducted over a period of 30 days in June 2019. The study commenced after obtaining the approval from Research Committee of CAHO (RC/002/2018) in November 2018. A simple random sampling technique was used and the data were collected through questionnaire in the form of Google Forms. Informed consent was not required to participate in the survey; answering the questionnaire indicated consent.

The questionnaire adopted in this study was based on review of already published studies and the objective of the current study. Face validity of the questionnaire was done and subsequently pilot tested with 50 respondents. Internal consistency was checked by using a reliability test with the Cronbach α value. It was inferred that 30 items of the questionnaire, that is, the statements with Likert scale options were highly reliable because the Cronbach α is found to be 0.960.

The validated structured questionnaire comprising 30 items was sent by Google Forms to 450 quality team members of the CAHO member organizations. The questionnaire was used to assess the perception of patient safety, culture, and quality of care among the

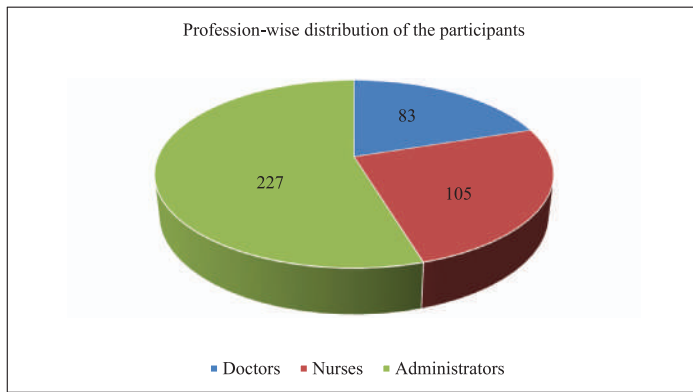


Figure 1.—Professionwise distribution of the participants (N = 415).

respondents. The responses were recorded in a 5-point scale from *strongly agree* to *strongly disagree*. For analysis, *strongly agree* and *agree* have been taken as positive responses. Responses that were *neutral*, *disagree*, and *strongly disagree* were taken as negative responses. A total of 415 valid responses were obtained and response rate was 92.22%. Various parameters such as patient education, patient satisfaction, documentation by nurses and doctors, reporting culture, emergency preparedness, facility management, equipment management, waiting times, and patient rights, which impact quality and safety aspects in a hospital, were included in the survey to study the impact of accreditation amongst the doctors, nurses, and administrators.

Statistical Analysis

Data were collected and a pie chart was designed with Microsoft Office Excel 2013. Data were analyzed with SPSS version 26.0 (IBM SPSS) for Windows. Descriptive statistics methodology was used to represent the data as frequencies and percentages. The 5-point Likert scale responses were considered as positive, neutral, and negative. Because the study was cross-sectional, the Mann-Whitney *U* test was used to compare the responses of the two groups. A two-tailed probability (*p*) value of less than 0.05 was considered statistically significant.

RESULTS

Of 415 valid participants, the highest number of responses was obtained from administrators (54.69%); the professionwise distribution of participants is shown in Figure 1.

In the present study, respondents were evaluated for their perception regarding the impact of hospital accreditation and patient safety (Table 1). For all 30 items, participants with a favorable response (i.e., *yes*) were significantly greater ($p < 0.001$). Moreover, of 415 participants, 326 (84.5%) responded that overall improvement in quality of healthcare services was a result of accreditation. Hence, the results showed a statistically significant association between the perception of staff

regarding hospital accreditation, quality of care, and patient safety.

The response of the participants according to the variation in responses of doctors and nurses versus administrators is depicted in Table 2. For all 30 items, as compared with doctors and nurses, a significantly greater number of administrators ($p < 0.05$) had a favorable response. Their motivation and satisfaction increased, except for item 26 ($p > 0.05$). When the responses were further analyzed by individual groups of doctor and nurse responses, variables like improvement in waiting time, patient rights, medical documentation, nursing documentation, and accountability of staff had a considerable positive response rate of 45% and above when compared with other variables among the total. Simultaneously, when the administrators' response was analyzed, variables like patient satisfaction, infection control practices, general maintenance of facility, compliance with rules governing occupational health risks, and statutory regulations had a positive response rate among the total variable pool.

The differences in responses with respect to years of hospital accreditation are shown in Table 3. Two groups were studied consisting of 1–4 years versus 4–12 years of hospital accreditation. For all 30 items, as compared with participants with 4–12 years of hospital accreditation, a significantly greater number of participants with 1–4 years of hospital accreditation ($p < 0.05$) had a favorable response except for items 14 and 27 ($p > 0.05$).

DISCUSSION

The healthcare industry is one of the most important industries in the service field. Owing to the complex nature and number of stakeholders in healthcare system, healthcare quality is a complex concept as stated by Weheba.^[21]

The healthcare industry has undergone transformation from a physician-centered approach to a patient-centered approach, leading to high demand for quality in healthcare services. That change has caused quality assurance mechanisms to intensify and accreditation to be pursued. Accreditation serves as an essential component to achieve technical competence within healthcare organizations in terms of delivering certain standards of healthcare services. In India, factors influencing the growth of hospital accreditation are primarily due to pressure from other organizations on which accreditation is dependent and cultural expectations within the area where the organization functions.

Hence, in the present study various parameters denoting the impact and awareness of hospital accreditation amongst doctors, nurses, and administrators—quality team members—were studied. Most responses were obtained from the administrators (55%).

The present study showed high positive responses for the following: quality of care in the form of patient awareness (85%) and safety (84.8%), enhanced reporting

Table 1.—Perception of participants on impact of accreditation*

Variables	Yes n (%)	No n (%)	p-Value
Patient education has improved	307 (85)	54 (15)	< 0.001
Patient satisfaction has increased	288 (85)	51 (15)	< 0.001
Improvement is noticed in waiting time	282 (83.9)	54 (16.1)	< 0.001
Respect to patients and their rights have improved	304 (84)	58 (16)	< 0.001
Hospital is better prepared to manage emergencies such as fire	331 (83.8)	64 (16.2)	< 0.001
Staff demonstration	337 (84.5)	62 (15.5)	< 0.001
Improvement in patient safety issues	334 (84.8)	60 (15.2)	< 0.001
Safety-related equipment	338 (84.9)	60 (15.1)	< 0.001
Staff awareness on reporting incidents' safety issues	315 (84)	60 (16)	< 0.001
Infection control practices are better	327 (83.8)	63 (16.2)	< 0.001
Cleanliness has improved	317 (85)	56 (15)	< 0.001
General maintenance of facility has improved	319 (83.9)	61 (16.1)	< 0.001
Biomedical waste segregation has improved	330 (83.5)	65 (16.5)	< 0.001
Improvement in medical documentation by clinicians	287 (83.9)	55 (16.1)	< 0.001
Enhancement in nursing documentation is observed	320 (84.2)	60 (15.8)	< 0.001
Functioning and management of lab have improved	318 (85.3)	55 (14.7)	< 0.001
Management of equipment has improved	322 (85.6)	54 (14.4)	< 0.001
Signage has improved in the hospital	338 (84.5)	62 (15.5)	< 0.001
There is improvement in awareness of doctors on clinical policies	266 (83.6)	52 (16.4)	< 0.001
There is improvement in awareness of nurses on nursing policies	329 (84.1)	62 (15.9)	< 0.001
There is improvement in awareness of support staff on hospital policies	315 (84.5)	58 (15.5)	< 0.001
Staff awareness of and compliance with rules governing occupational health risks have improved	300 (84.7)	54 (15.3)	< 0.001
Roles, responsibilities of staff are well defined	309 (84.9)	55 (15.1)	< 0.001
Accountability of staff has increased	300 (84.5)	55 (15.5)	< 0.001
There is improvement in the coordination between departments	291 (85.3)	50 (14.7)	< 0.001
Staff motivation and satisfaction have increased	247 (85.2)	43 (14.8)	< 0.001
Key performance indicators are captured and have shown improvement	312 (85.5)	53 (14.5)	< 0.001
Decision-making is based on evidence and data	297 (85.3)	51 (14.7)	< 0.001
Compliance with government norms and statutory regulations have improved	333 (84.3)	62 (15.7)	< 0.001
Overall quality of care has improved	326 (84.5)	60 (15.5)	< 0.001

*In the reliability test, the Cronbach value is 0.960.

and documentation (84.2%), good infection control (83.8%) and cleanliness (85%), improved coordination between various departments (85.3%), satisfaction of the hospital staff (85.2%), and overall improvement in the quality of hospital care (84.5%). These findings are consistent with those observed by Andres et al.^[22] A study by Poland^[23] reported that ambulatory facilities have experienced significant changes in life safety requirements and focuses on usefulness of documentation in improving hospital accreditation. Ghareeb et al.^[24] investigated how accreditation helped introduce organizational changes by promoting organizational learning and quality improvement initiatives evaluating seven components, namely leadership, information and analysis, strategic quality planning, human resources utilization, quality management, quality results, and customer satisfaction. They found very high scores ranging between 3.67 and 4.03, signifying positive patient satisfaction. In another study by Rajalatchumi et al.,^[25] the total composite positive perception of patient safety culture among the healthcare professionals at their institute was found to be 58%. A study by El-Jardali et al.^[26] reported that by introducing new quality standards and reinforcing existing ones, such as infection control, occupational safety, waste and fire management, and incident and accident reporting, centers

were able to translate the notions of quality into tangible outcomes that could be measured and compared with other centers, both nationally and internationally.

The study showed an average positive response among doctors and nurses (44.1%) and was highest among administrators (55.9%). As compared with doctors and nurses, a significantly larger number of administrators ($p < 0.05$) had a positive response. However, no statistical difference was observed in responses related to improvement of staff motivation and satisfaction between the two groups ($p = 0.055$). Contrary to the findings of the present study, Listyowardojo et al.^[27] reported a more positive response amongst the doctors. Additionally, Diab^[28] reported an equal positive attitude towards accreditation among doctors (average mean = 4.12) and nurses (average mean = 4.10) in hospitals in Jordan. This is an interesting finding because the respondents were all involved in quality management from different backgrounds. It is possible that the doctors and nurses in quality management have a more stringent outlook on these requirements than the administrators who may not have a medical background. It is also possible that the positive response reported among administrators is the result of the inbuilt system developed by the organization that includes regular supervision and management of various issues by administrators who,

Table 2.—Comparison of responses from doctors, nurses, and administrators

Variables	Doctors and Nurses	Administrators	p-Value
	n (%)	n (%)	
Patient education has improved	157 (43.5)	204 (56.5)	0.001
Patient satisfaction has increased	147 (43.3)	192 (56.7)	0.001
Improvement is noticed in waiting time	152 (45.2)	184 (54.8)	0.013
Respect to patients and their rights have improved	164 (45.2)	198 (54.8)	0.01
Hospital is better prepared to manage emergencies such as fire	177 (44.7)	218 (55.3)	0.003
Staff demonstration	176 (44.2)	223 (55.8)	0.001
Improvement in patient safety issues	174 (44.1)	220 (55.9)	0.001
Safety-related equipment	177 (44.4)	221 (55.6)	0.002
Staff awareness on reporting incidents' safety issues	167 (44.6)	208 (55.4)	0.003
Infection control practices are better	171 (43.9)	219 (56.1)	0.001
Cleanliness has improved	167 (44.8)	206 (55.2)	0.005
General maintenance of facility has improved	168 (44.2)	212 (55.8)	0.002
Biomedical waste segregation has improved	175 (44.4)	220 (55.6)	0.002
Improvement in medical documentation by clinicians	155 (45.4)	187 (54.6)	0.017
Enhancement in nursing documentation is observed	171 (45.1)	209 (54.9)	0.007
Functioning and management of lab have improved	164 (43.9)	209 (56.1)	0.001
Management of equipment has improved	166 (44.2)	210 (55.8)	0.002
Signage has improved in the hospital	179 (44.7)	221 (55.3)	0.003
There is improvement in awareness of doctors on clinical policies	140 (44)	178 (56)	0.002
There is improvement in awareness of nurses on nursing policies	173 (44.2)	218 (55.8)	0.001
There is improvement in awareness of support staff on hospital policies	160 (43)	213 (57)	< 0.001
Staff awareness of and compliance with rules governing occupational health risks have improved	152 (42.9)	202 (57.1)	< 0.001
Roles, responsibilities of staff are well defined	162 (44.6)	202 (55.4)	0.004
Accountability of staff has increased	159 (44.9)	196 (55.1)	0.007
There is improvement in the coordination between departments	150 (43.9)	191 (56.1)	0.002
Staff motivation and satisfaction have increased	133 (46)	157 (54)	0.055*
Key performance indicators are captured and have shown improvement	159 (43.6)	206 (56.4)	0.001
Decision-making is based on evidence and data	151 (43.4)	197 (56.6)	0.001
Compliance with government norms and statutory regulations have improved	172 (43.5)	223 (56.5)	< 0.001
Overall quality of care has improved	170 (44.1)	216 (55.9)	0.001

*p-value statistically not significant.

therefore, have a broader view of overall quality and safety. Furthermore, most reporting systems and documentation are routinely checked by the administrators. This also could have invited the more positive response amongst the administrators.

There was an overall significant response rate ($p = 0.012$) related to the years of accreditation of the hospital for the 1–4 year and 4–12 year group. Staff working in hospitals that were recently accredited (within 1–4 years of accreditation) had a more favorable response than hospitals with 4–12 years of accreditation. This is possible because the hospital staff would have worked hard for the accreditation, and the transition from nonaccredited systems to stringent protocols would have showed improvement immediately. As the number of years of accreditation increases, it is possible that systems become established and the changes seen may be small incremental changes. The present study showed that improvement in integrants such as medical documentation by clinicians and key performance indicators does not vary with years of accreditation. To establish its benefits, the process of accreditation requires resources and time.^[29,30] As a result of periodic accreditation, the hospitals in the present study had maintained delivery of quality health services over the years.

Although the present study was a multi-institutional study, it lacked comparison between small, medium, or large-sized hospitals. Moreover, patient satisfaction before and after accreditation was not evaluated. The respondents are doctors, nurses, and administrators working in quality teams of hospitals and not the practicing clinicians, nurses, and operations managers, which adds to the bias in understanding the actual feedback from the practitioners. Thus, further studies are required to evaluate these factors.

CONCLUSION

The present study concludes that accreditation is vital to ensure disciplined hospital management and to impart quality care and patient safety. It included various parameters related to patient satisfaction, staff awareness and responsibilities, coordinated work, infection control practices and cleanliness, documentation, infrastructure care and management (eg, laboratory, equipment). The results indicate that accreditation has had an impact on hospitals in improvements.

One of the most important hurdles to implementing various accreditation programs is the dilemma of health-care professionals, especially senior hospital staff, regard-

Table 3.—Comparison of responses per years of hospital accreditation (1–4 years versus 4–12 years)

Variables	1–4 Years	4–12 Years	p-Value
	n (%)	n (%)	
Patient education has improved	149 (55.4)	120 (44.6)	0.012
Patient satisfaction has increased	140 (55.8)	111 (44.2)	0.009
Improvement is noticed in waiting time	139 (55.4)	112 (44.6)	0.016
Respect to patients and their rights have improved	148 (55.6)	118 (44.4)	0.010
Hospital is better prepared to manage emergencies such as fire	160 (55.9)	126 (44.1)	0.005
Staff demonstration	162 (55.5)	130 (44.5)	0.008
Improvement in patient safety issues	161 (55.5)	129 (44.5)	0.008
Safety-related equipment	165 (56.7)	126 (43.3)	0.001
Staff awareness on reporting incidents' safety issues	152 (54.7)	126 (45.3)	0.027
Infection control practices are better	160 (56.3)	124 (43.7)	0.003
Cleanliness has improved	155 (55.6)	124 (44.4)	0.008
General maintenance of facility has improved	157 (55.9)	124 (44.1)	0.005
Biomedical waste segregation has improved	161 (56.1)	126 (43.9)	0.003
Improvement in medical documentation by clinicians	135 (53.8)	116 (46.2)	0.089*
Enhancement in nursing documentation is observed	157 (55.9)	124 (44.1)	0.005
Functioning and management of lab have improved	149 (54.2)	126 (45.8)	0.049*
Management of equipment has improved	155 (55.2)	126 (44.8)	0.014
Signage has improved in the hospital	164 (56)	129 (44)	0.004
There is improvement in awareness of doctors on clinical policies	135 (56.5)	104 (43.5)	0.004
There is improvement in awareness of nurses on nursing policies	161 (56.1)	126 (43.9)	0.003
There is improvement in awareness of support staff on hospital policies	154 (56)	121 (44)	0.005
Staff awareness of and compliance with rules governing occupational health risks have improved	147 (55.3)	119 (44.7)	0.014
Roles, responsibilities of staff are well defined	149 (55.2)	121 (44.8)	0.016
Accountability of staff has increased	147 (56.5)	113 (43.5)	0.003
There is improvement in the coordination between departments	139 (55.2)	113 (44.8)	0.020
Staff motivation and satisfaction have increased	119 (55.9)	94 (44.1)	0.015
Key performance indicators are captured and have shown improvement	146 (54.1)	124 (45.9)	0.057*
Decision-making is based on evidence and data	147 (56.5)	113 (43.5)	0.003
Compliance with government norms and statutory regulations have improved	164 (56.4)	127 (43.6)	0.002
Overall quality of care has improved	156 (55.3)	126 (44.7)	0.012

*p-value statistically not significant.

ing the positive impact of accreditation programs on the quality of healthcare services. This can be overcome by involving them in accreditation programs and providing them with evidence-based literature. However, the need to educate healthcare professionals about the potential benefits of accreditation, which should resolve any cynical attitude of healthcare professionals towards accreditation, is of utmost importance.

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