Do Differences Exist in the Perception of Doctors and Nurses on Quality Management Practices in Accredited Hospitals?

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Abstract

Background / Aim: The role of medical professionals in implementing quality management practices deserves significant importance in healthcare system. Hence, this study aims to explore the perception of doctors and nurses of accredited hospitals on quality management practices (QMP). Further, the studyexamined whether any difference exists in their perception towards the dimensions of quality management practices. The quality dimensions considered for the study are: Top management commitment (TMC), Quality assurance system (QAS), Quality improvement outcomes (QIO), Adherence to Accreditation program (AAP) and Human Resource (HR) participation in quality.Moreover,this studyalso observed influences of awareness trainingon perception towards quality practices.

Methods: The study covered hospitals accredited with NABH (National Accreditation Board of Hospitals and Healthcare Providers) and 440 doctors and nurses participated in the study. Mean, and the standard deviation were used to determine the Quality Management Practices variables. ANOVA was used to test the perception among the doctors and nurses towards quality management practices.

Results: The study proclaims doctors and nurses significantly differ in their perception about Quality Improvement Outcome and Adherence to Accreditation Program than other dimensions of quality management practices studied. The quality awareness training has no influence on their perception about quality management practices.

Conclusion: Doctors and nurses significantly differ in their perception for two of the five dimensions of quality management practices studied. Comprehensive conceptualisation of quality management practices would inspire doctors and nurses to voluntarily participate in quality management practices. Greater involvement of medical professionals would heighten the quality to benefit the healthcare clientele.

Keywords: Healthcare, Quality management practices, Perception, Accreditation,

Introduction:

Healthcare industry in India has witnessed discernible changes in the past few years. It has transformed from doctor-centred approach to a patient-centred approach, due to escalating demand for quality. Simultaneously, Indian health-care organisations are determined to acquire accreditation for enhancing quality in services through the Quality Council of India and the National Accreditation Board of Hospitals (NABH) and Healthcare service providers. Since medical professionals' role in implementing quality management practices earns more significance, the health-care providers must concentrate on their position, participation, and overall experience in travelling the quality journey towards the successful implementation of Quality Management Practices(1).

Employees' perception of quality management practises been explored in other industries (2)in Europe (3) in Indonesia. Similarly, nurses' perceptions in various countries explored, (4) Jordan, (5), (6)Lebanon. However, not many studies researched on medical professionals' perception of quality management practices in Indian accredited hospitals. This study pursues to fill this gap by measuring doctors and nurses' perception and examine the difference in their perception of quality management practices. Furthermore, observe the influence of quality awareness training on their perception.

Quality management practices in health-care which initially professed as directing the health-care personnel to perform their tasks. Nevertheless, presently it is interpreted as a "process of care" (7). It is avitalelement to measure the quality of any organisation. Various models were developed by (8–14)to measure quality management practices in the varied operational setting. In hospitals settings, (1) used factors such as top management commitment; quality assurance framework in Jordan. Whereas(15,16)employed constructs such as leadership commitment, quality improvement outcomes, quality management process and consumer satisfaction. El-jardali *et al.*, 2008 used leadership commitment, quality results, strategic quality planning, staff involvement, benefits of accreditation, reward and recognition, training and education while assessing nurses' perception.

The present study employs five essential dimensions of Quality Management Practices to measure the perception of doctors and nurses, which are frequently occurring in the literature. That includes; Top management commitment, Quality assurance system, Quality improvement outcomes, Adherence to Accreditation program and Human Resource participation in quality.

Chrusciel and Field, 2003define Top management commitment "as active and visible support or commitment from the management of the organisation". Studies show positive evidence for top management leadership contribution towards quality management practices, (12,18–21).Authors (22,23) lay stress on considering leadership as a critical factor for implementing quality improvement in services. In the current health-care environment, administration owns the capacity to transcend quality activities into the highest level of standard performance (24).

The next dimension measured is Quality assurance systems, which helps in identifying problems, assessing, evaluating the issues in health-care delivery for quality improvement and achieving the expected results (25). According to (26)the term "quality assurance" indicates that maintaining constant high quality effective and efficient care provided by health care organisations, also referred to as

activities and programs intended to "assure" or promise for the improvement in the quality of care.

Outcomes of quality improvement are vital in ensuring the effective implementation of the quality systems. The goal of Quality Improvement is "to consistently meet or exceed the needs of patients, staff, health professionals and the community" (27). Quality improvement outcomes are measures to describe the effects of care on the health status of patients. Several researchers have asserted that the successful implementation of TQM can result in significantly superior outcomes in a health-care organisation (28–30).

Healthcare organisations believe that accreditation helps in adhering to the evidence-based practices and thereby achieve high-quality services (31–33). Accreditation involves a process to assess performance concerning established standards and to implement and improve quality continuously (34). Barker *et al.*, 2002; Wells *et al.*, 2007; Pollack and D'Aunno, 2008explained evidence-based practices of quality gives a pathway to accreditation and to implement, achieve high-quality services outcome to the customer. It is in support of the dimension adherence to accreditation program used in this study.

The fifth dimension is Human Resource participation in quality represents staff involvement, employees attitude for a positive outcome, empowerment, and enhancement of skills through training and motivation. Sadikoglu and Zehir, 2010; Naser Alolayyan, Anuar Mohd Ali and Idris, 2011recognised HR effort as one of the critical factors for successful quality improvement. HR participation is a vital component of Quality Management Practices; it requires management commitment to create a quality

work culture and render quality services to the customers (37,38).

This study, therefore, aims to explore the perception of doctors and nurses of accredited hospitals about quality management practices and examining the existence of difference in their perception, concerning the five dimensions of quality management practices. (Top Management commitment, Quality Assurance System, Quality Improvement Outcomes, Adherence to Accreditation Program and Human Resource participation). Besides, to examine the influence of quality awareness training on their perception towards quality management practices. This study would help strategic planner of health-care organisations understand the readiness of medical professionals for participating in quality management practices. The hypotheses for the study so derived are:

H1. Doctors and nurses differ in their perception of top management commitment towards quality.

H2. Doctors and nurses differ in their perception of the quality assurance system.

H3. Doctors and nurses differ in their perception of quality improvement outcomes.

H4. Doctors and nurses differ in their perception of adherence to accreditation programs.

H5. Doctors and nurses differ in their perception of HR participation in quality.

H6. Quality awareness training influences the perception of doctors and nurses towards quality management practices.

Methodology:
Sample and Respondents
In this descriptive study, data collected from doctors and nurses practising in accredited hospitals in India through convenient sampling techniques. Study population of doctors and nurses with minimum one-year experience, the diploma to post-graduation and above

qualification. At the same time, hospitals with different accreditation (Full standards, Small health-care organisation standards, Eye care standards) sizes (small, medium and large based on the bed capacity) included in the study. The total number of questionnaires returned with response included 440 out of the 480 resulting in an overall response rate of 91.6 %. The missing 60 potential participants did not answer the survey.

Demographic characteristics of the respondents

The characteristics of the 440 respondents that included 217 (49.3%) Doctors and 223

S. No	Variables	Cronbach's Alpha	Items
1	Top Management Commitment	0.893	6
2	Quality Assurance System	0.795	5
3	Quality Improvement Outcomes	0.837	6
4	Adherence to Accreditation program	0.889	5
5	HR participation	0.817	6
	Total items		28

(50.7%) nurses amongst (56.1%) 247 respondent belongs to the age group between 25 – 35 years, 128 respondents between 46- 55 years (29.1%), 27 (6.5%) belongs to 56 - 60 years. Among doctors and nurses 142 (32.3%) were diploma holders, 132-degree holder (30%), 106 post graduated (24.1%), 60 were above postgraduates (13.6%), in years of experience in the same position, 175 (39.8%) had <5 years, 114 (25.9%) <10 years, 65 (14.8%) <15 years, 43 (9.8%) <20 and 30 years. Based on the hospital factors 105 (23.9%) respondents were from large-sized

hospitals, 189 (43.9%) from medium-sized, 146 (33.2%) from the small-sized hospital. Based on accreditation status 215 respondents (48.9%) from full standards (entry-level), 147 (33.4%) from Small health-care organisation standards (SHCO) and the remaining (17.7%) 78 were from eye care standards. 206 (46.8) participants attended training on quality, and 234 (53.2%) did not attend.

Measures

Self-administered questionnaires used for the data collection on socio-demography such as age, education, experience along with some hospital-related rational factors such as hospital size, accreditation status, awareness training on the quality provided to the doctors and nurses. To assess the dimensions of quality management practises, validated questions adopted from studies of (1,6,39,40). Five dimensions have 28 items to rate, which includes Top Management Commitment, Quality Assurance system, Quality improvement outcomes, Adherence to Accreditation Program and HR participation in quality. Ratings used 5 points Likert's scale ranging from (1) strongly disagrees to (5) strongly agree. The questionnaires were pilot tested for testing reliability. Cronbach Alpha exceeded 0.70 for all scales, as

shown in table 1. The content validity examined through hospital management experts and quality assessors of NABH.

Table:1 Reliability Test

Analysis

Statistical analyses performed using Statistical Package for the Social Sciences (SPSS) version 21 software. Frequencies, percentages for the demographic characteristics, Mean and Standard deviation for the survey sample calculated. The statistical tests performed by using a critical value of alpha.05 to indicate statistical significance (P < .05). The 5-pointLikert's scale reflects the answers

provided to the items of the scale and Analysis of variance (ANOVA) test utilised to assess the significance among variables which computed for the two groups of doctors and nurses for the dimensions of Quality Management practices.

Table: 2 indicates that the study on two groups (doctors and nurses) displays the significant value of one-way ANOVA for Quality Management and practices by work category, i.e., (P=0.048) for Quality Improvement Outcome (QIO), hence the hypothesis - H3supported. Secondly, (P=0.031) for Adherence to Accreditation Program (AAP) which were p <0.5reveals that hypothesis H4 is also supported. Further, mean values of doctors and nurses for QIO and AAP shows doctors score high (4.05 and 4.06) than nurses (3.91 and 3.90).

For other dimensions of QMP, (P=0.947) for Top management commitment indicates hypothesis H1 not supported. (P=0.141) for Quality Assurance Systems implies that hypothesis H2 also notsupported. Finally (P=0.216) for HR participation in quality exhibits insignificant differences in their perception and hypothesis H5 is not supported. Additionally, there is no influence of quality awareness training on their perception, however it indicates minor differences in the perception between trained and not trained nurses for all the domains examined.No significant influence was observed with values, (TMC P=0.905, QAS P=0.781, QIO P=0.920, AAP P=0.978, HRP P=0.345) hence hypothesis H6 is also rejected at 95% of confidence Interval. There is no difference in the mean values between trained and not trained doctors as they have scored (3.98).

Discussion

The hospitals and strategic planners could understand from the present study that doctors and nurses significantly differed in their perception for two of the five dimensions of quality management practices in accredited hospitals. Closer look reveals that doctors outscored nurses in their perception of the QMP dimensions studied. Generally, doctors and nurses do not receive enough training on Quality Assurance, quality improvement methods as part of their medical education or services in the hospital which made them immune of the quality management practices. However, the efforts of medical professionals are imperative as it affects the internal quality of the health-care organisation. Measures to heighten medical professionals understanding of QMP is the vital. Comprehensive conceptualisation of quality management practices would augment their perception and participation. Medical professionals are devoid of appropriate official role in quality management system. Hence, they are dispassionate towards designing and implementing policies, systems related to quality. Entrusting apposite responsibilities for the medical professionals will encourage their involvement in the QMP.

Savič and Pagon, 2008 study exposed both doctors and nurses estimated their low level of personal involvement in their organisations which resulted similar to this study showing insignificant differences in the perception of doctors and nurses about Human Resources participation in quality. The findings of this studyconfirmed to the earlier studies done in various health-care industry. It also reveals that both doctors and nurses have insignificant differences in their perception towards top management commitment towards quality which is in contrast to some other studies done earlier.Figures 1, 2, 3 and 4 shows pictorial representation of analysis results and mean value of total doctors and nurses' perspectives on quality management practices dimensions and influences of training on their perception. Furthermore, subsequent sections of

theoretical, practical and social implications
discussed the various findings of the study.

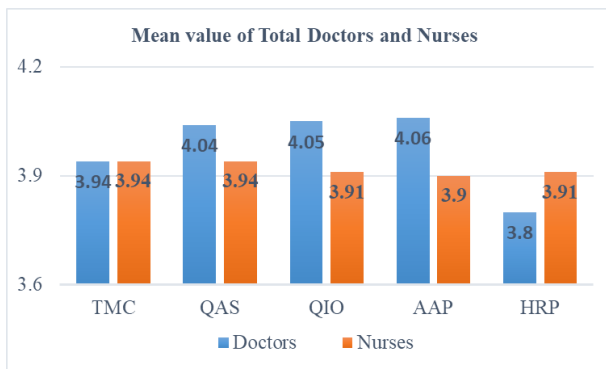| Group	Training On Quality Awareness	N	Top Management Commitment (Mean)	SD	Quality Assurance System (Mean)	SD	Quality Improvement Outcome (Mean)	SD	Adherence to accreditation Program (Mean)	SD	HR participation (Mean)	SD	Overall QMP (Mean)	SD
Doctors	Not Trained	139	4.01	0.74	4.08	0.59	4.1	0.61	4.09	0.69	3.88	0.73	4.03	0.58
	Trained	78	3.81	0.8	3.97	0.61	3.96	0.72	4	0.75	3.67	0.69	3.87	0.61
	Total	217	3.94	0.77	4.04	0.6	4.05	0.65	4.06	0.71	3.8	0.72	3.97	0.6
Nurses	Not Trained	151	3.88	0.79	3.9	0.82	3.87	0.83	3.87	0.76	3.88	0.73	3.88	0.7
	Trained	72	4.07	0.68	4.04	0.66	4.02	0.69	3.96	0.82	3.96	0.74	4.01	0.64
	Total	223	3.94	0.76	3.94	0.78	3.91	0.79	3.9	0.78	3.91	0.73	3.92	0.69
Total	Not Trained	290	3.94	0.77	3.98	0.72	3.84	0.74	3.83	0.73	3.83	0.73	3.95	0.65
	Trained	150	3.93	0.75	4	0.64	3.99	0.7	3.98	0.78	3.81	0.73	3.94	0.63
	Total	440	3.94	0.76	3.99	0.69	3.9	0.73	3.9	0.75	3.86	0.73	3.95	0.64
F and P value for dimensions			F=0.006 P=0.947		F=2.177 P=0.141		**F=3.871 P=0.048**		**F=4.689 P=0.031**		F=2.345 P=0.216		F=0.631 P=0.428	
F and P value for training			F=0.014 P=0.905		F=0.077 P=0.781		F=0.010 P=0.920		F=0.001 P=0.978		F=0.849 P=0.345		F=0.029 P=0.866	

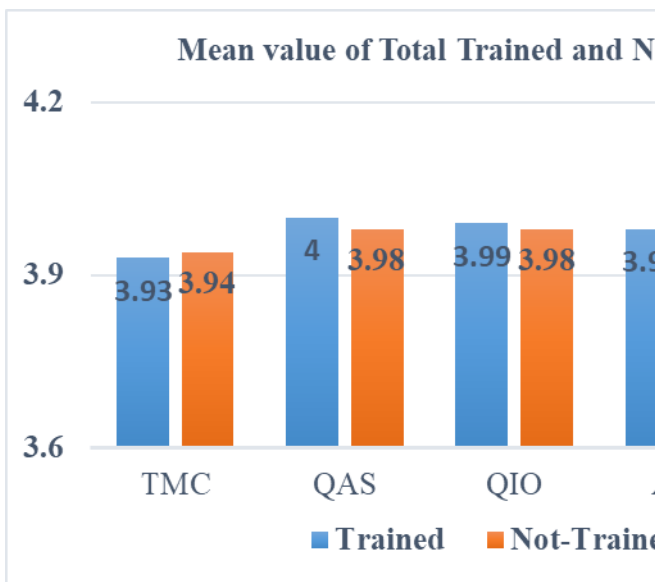**Figure 1 Perception of Total Doctors and Nurses on Quality Dimensions**

Figure 2 Perception of Total Trained & Not-Trained Doctors,Nurses on Quality Dimensions
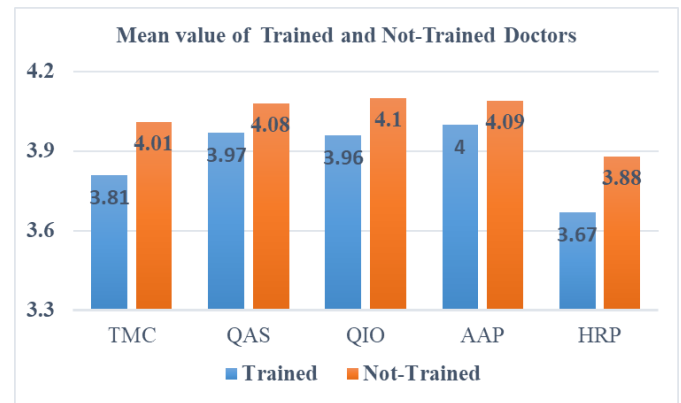

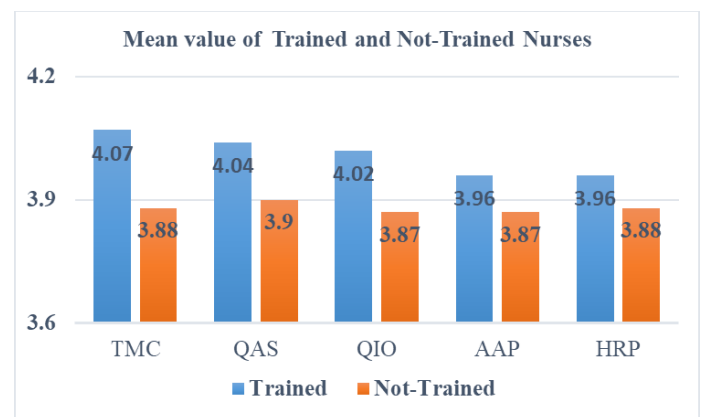**Figure 3 Perception of Trained & Not-Trained Doctors on Quality Dimensions**

Figure 4 Perception of Trained & Not-Trained Nurses on Quality Dimensions

Implications

Theoretical Implications

The study aimed to examine doctors and nurse's perception of quality management practices in accredited Indian Hospitals. The result reveals significant differences in their perception for two of the five dimensions studied viz., Quality Improvement Outcomes and Adherence to accreditation programs. The awareness training on quality had no significant influence on their perception which is exhibited in Fig:2The previous study done by (41) at Saudi Arabia on Participation and benefits of accreditation among health-care professionals resulted in improvement in the delivery of health-care. Whereas, in this study perception of Quality Improvement Outcomes among doctors and nurses displays

that their hospitals have shown steady and measurable improvement in the satisfaction of the patient in preceding years which resulted in improved quality of services in clinical, administration, and allied health services. They also feel hospitals have maintained a high quality of health service according to the needs of the patient despite their financial constraints. Wardhani et al., 2009; Siverbo et al., 2014 studies show quality improvement outcome strongly depends on the clinical frontline staff. Algahtani et al., 2017study shows that nurses' perception is higher than doctors on quality improvement outcomes.

Thor et al., 2010 showed doctors' perception is higher on quality outcomes, whereas the present study showed doctors' perception is more heightened than nurses of Quality Improvement Outcomes which is show in Fig: 1. Doctors are involved in direct patient care, which indicates they have more opportunities to observe the results of Quality improvement outcomes. In adherence to accreditation programs, the present study exhibited doctor's score more than nurses as shown in Fig: 1. however both significantly perceive that an accreditation program enables improved quality in health-care services which motivates cooperation and encourages teamwork among staff. Further, it reveals doctors and nurses perceive that adherence to accreditation program also facilitates the improvement of networking with other partners. This finding is in negation with the studies done by (45–47) where doctors agreed on the accreditation process to be more significant in providing benefits to their organisation.

While this study expresses doctors and nurses' perception of top management commitment was not significantly differing and both scored equal as shown in Fig:1, contrastingly, (48) study in Saudi Arabian accredited hospitals

indicates the perception of nurses was significant towards top management support. M. Diab, 2011 study illustrates, and both doctors and nurses appreciated the management and leadership in quality accreditation. In the present study, doctors and nurses display insignificant differences in their perception of the Quality Assurance system whereas doctors have scored more as show in Fig:1. Contrasting (48) study revealed nurses rated high for quality management in an accredited hospital. Talib and Rahman, (2013) indicated that large hospitals adopt and maintain quality standards and always engage in different types of quality assurance programs. Most of the study samples belonging to medium-size hospitals could have resulted in an insignificant perception of quality assurance systems.

Finally, rational factor, quality awareness training provided to doctors and nurses shows insignificant influence on their perception. A closer look into the trained and not doctors group shows no difference in their mean scores denoting mere quality awareness training would cause *any* influence in their perception. However, while looking into the trained and not trained nurses group shows significant differences in their mean scores. The trained nurses have scored more than that of not trained nurses which is depicted in Fig: 2 and 3. This reveals effective comprehensive training could influence the perception of nurses.

Practical Implications

Doctors and nurses show insignificant differences on three quality management practices dimensions, top management participation, quality assurance system, HR participation towards quality. Furthermore, in the present scenario, large healthcare organisations materialize to quality status to gain competitive advantage. Quality status is a

good selling point when accredited by International bodies. Whereas most of the private medium as well small size hospitals are opting for the quality status as government has mandated. So, voluntary adoption of QMP is relatively less than that of compulsion. This way, the top management of the hospitals entrust the management and medical team to implement QMP in which way they don't fully participate in the process other than proposing to be achieved. The core implementation is carried out by quality team, shouldering most of the responsibilities. The strict enforcement of the quality management practices makes the quality team to be infamous. This was doctors and nurses perceive insignificant towards the commitment of top management towards quality management practices.

Quality assurance system being specific to each department; the process involves vital performance indicators and document preparations for all the process involved. It is quite challenging to engage the medical professionals in huge documentation work. Moreover, most of the work done by nurses would need confirmation from medical personnel, hence both influence one another in completion of their work or patient care services. They feel exasperated by the rigorous documentation processes which impacts their perception about quality assurance systems. Sensitizing about definite benefits of the quality assurance systems will develop ownership of the process among medical professionals yielding voluntary participation.

While observing HR participation in quality, HR involves all categories of staff right from housekeeper to top management. Involving staff at all level is mandatory, cultivating them to follow stringent quality protocols and habituating documentation work is a herculean task. Hospitals could develop customized strategies to bring quality as culture by continuous training programs. HR includes

revealing performance appraisal results to the employees for providingfeedback for performance improvement. This could be achieved with win-win pattern. Appropriate rewards for the performance would boost the morale and motivate the whole team.

The study exhibits that quality awareness training has no impact on the perception of doctors and nurses. The scenario portrays issue of accessibility to training by medical professionals. Assembling all medical professionals for a training session is practically complicated as it would affect their availability for emergency services. Medical professionals feel quality management practices is not their cup of tea. Moreover, the stigma attached with QMP or accreditation process is it would be mere record work and add more volume to their portfolio. They will be encouraged to take up training for knowledge building or skill building only when they understand the benefits out of it. On contrary few medical professionals take up quality assessor position with greater involvement towards quality. Medical professionals with quality background could actively participate in designing, implementing and assessing the QMP.

Regarding nurses, their roles and responsibilities with extended working hours may hinder their accessibility to the quality-related training. Covering 100% nurses in a hospital for all the mandatory training on quality is not possible. Nursing council of India has made it mandate that registered nurses complete 150 hours of knowledge and filed updating classes. This opportunity could be materialized for enriching nurses' knowledge on quality management practices in health-care. Effective training would augment positive perception of nurses.

Several institutions opt for structured quality orientation programs for doctors and nurses for knowledge updating. Such external structured programs may give a break for them from their hectic schedules. Such vacations for upgrading their knowledge and skills in regular interval keeps them abreast with current trend in the health-care industry.

Teaching hospitals have the advantage of exposing the medical and nursing professionals to quality concepts through ongoing teaching programs in quality and research publication. Also, quality and management aspects could be added in educational curriculum to make them aware during their course of education. Training of trainers' course would develop trainer among doctors and nurses. In general building quality culture, motivating the quality team, continuous improvement of quality with opportunity to keep abreast with current developments would prevent workforce from being outdated.

Social Implications

The improved perception of the health-care workers, especially doctors and nurses, would improve the successful implementation of quality management practices and achieve good quality status. The quality status of the hospitals would heighten the brand value in the community they serve. Successful implementation of QMP would influence the patient satisfaction level ultimately benefiting the population in need of quality health-care. The quality status could be benchmarking for participating in programs and taking up government schemes. Teaching hospitals can incorporate quality aspects in their educational programs. Moreover, hospitals with quality accreditation areperceived more responsible in their health-care services. Teaching staffs trained in qualitywill add value to the teaching program, invariably resulting in good quality

doctors and nurses passing out from their institution. Hospitals with good quality status would imbed the quality culture into all who participate in their services right from medical to teaching.

Conclusion

Quality in hospitals leads to better health outcomes, and accreditation places a strong base for successful implementation of quality management practices. However, to achieve and implement quality management practices, hospitals internally need support from all the employees, essentially from doctors and nurses who work directly with the patients. In this study, doctors and nurses of accredited hospitals distillate predominantly on two of the quality management practices dimensions viz., Quality Improvement Outcome and Adherence to Accreditation Program. Doctors and nurses' comprehensive conceptualisation of quality management practices would attract them to participate in successful implementation. This could be achieved by introducing quality concepts in their curriculum as well conducting custom-made knowledge building training program. However, this study is limited only to the accredited private hospitals in India, and medical professionals, further studies focusing on accredited public hospitals, covering other categories of professionals would reveal more understanding on the implementation of Quality management practices in accredited hospitals.

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