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COHESIVE INFLUENCE OF QUALITY MANAGEMENT PRACTICES ON IMPROVED QUALITY OUTCOMES IN ACCREDITED HOSPITALS

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ABSTRACT- The study examined the cohesive influence of quality management practices on improved quality outcomes in accredited hospitals. Based on the detailed literature review, a set of research objectives and conceptual model was framed. The research objectives were examined using PLS-SEM with the survey responses of 563 healthcare professionals comprising doctors, nurses, paramedical and allied technicians and administrators in accredited hospitals in India. The study found significant influence of quality management practices over the improved quality outcomes. However, top management commitment towards accreditation program stood insignificant, also emphasizing the importance of employee participation in quality improvement. Enhanced employee participation in quality assurance system through continuous training was found significant using PLS-MGA (Multi Group Analysis) approach. The study wouldaugment the readiness of healthcare organizations to adopt quality management practices for widening the scope of serviceswith improved quality. With substantial role of top management commitment towards quality management and coherence of employee participation, effective quality assurance system and accreditation program achieving improved quality outcomes is evident.

Key words: **Accreditation, Improved quality outcome, PLS-MGA, Quality management practices, Training.**

I. INTRODUCTION

In the global economy healthcare has become one among the essentialservice contributing to the country's growth. The rapid growth embraces quality in the services provided and quality is viewed as the key component for choosing the hospitals by the healthcare consumers. On the other hand competition has reinforced quality in healthcare(Rivers Patrick A & Glover Saundra H, 2010).Furthermore, the market change and emphasize for accreditation have pressured hospitals to ensure implementation of Quality Management Practices(Nithya, 2018).It is generally accepted that firms become more competitive if they pursue sound quality management practices which turns their business to excel in performance (Cheng & Choy, 2013).In light of these facts, the need emerges to introduce improvement in the quality management of healthcare services. Researchers define "Quality management (QM) is both a set of guiding principles and management style and that have been adopted by managers in organizations to improve competitiveness and organizational performance"(Jafari, Forouzandeh, & Hashemi, 2016).

Organizations that adopt a quality management strategy deploy quality management practices with the focus to achieve high quality outputs in the form of improved quality outcomes in a sustained manner(Flynn, Schroeder, & Sakakibara, 1995).The forerunnersof TQM, Deming, Juran, Feigenbaum and Crosby, emphasizes that quality management practices as an essential weapon for organizational transformation. Therefore, it gives the impression that for the sustenance of any organisation it is imperative to have quality management practices in place. However quality management practices implementation in healthcare organisations always draws intensive attention to ensure effective implementation.

In the context of Indian healthcare sector, Health Access and Quality Index 2016, has highlighted average performance of 41.2 while observing for India. However India lag behind, Bangladesh and Bhutan who crossed 47.6 to 70.6 even though the economic indicators are higher for India in comparison with these countries. In order to address challenges India has to focus on investing and up grading the quality standards of healthcare. Since consumers demand for quality is growing it is not enough that Government increases the financial input for reforming health systems but also extend focus on quality consciousness with successful assurance mechanisms. Thequality assurance and quality improvement has to be viewed as two sides of a coin(Gopal, 2019).

It is generally believed that quality management practices and accreditation for quality will end up in improved performances of healthcare organizations, but such initiatives when pursued mandatorily insteadof voluntarily, realization of expected outcomes becomes a point of consideration. However, attention for research addressing the influence of quality management practices that are supporting each other in attaining the desired improvement in the outcomes is found to be less in Indian hospitals. Most studies have been focusing on the patients' perception of quality in the services delivered by the healthcare providers but the perception of the healthcare professionals who actually design and implement the practices need to be understood.This study endeavors to explore the influence of quality management practices on the improved quality outcomes from the perception of healthcare professionals comprising of doctors, nurses, technician and administrators in accredited Indian hospitals in South India.

II. LITERATURE REVIEW

'Quality' of healthcare services has long been an indefinable term. Based on the traits, expected outcome, technical or specialized services provided it has been defined in a varied terms (Self, Hegji, & Self, 2009).Though it has varying definitions any organization while commitment to quality can reapdefinite paybacks that starts from developing successful strategies to making expected profit in the same time(Jalili & Rezaie, 2010).

Quality management is defined as "unified management philosophy aiming at constant improvement of the performance of processes, products and services to achieve or exceed customer needs and expectations" (Prajogo & McDermott, 2005; Sousa & Voss, 2002).Several studies found significant relationship between quality management and different variables ranging from organizationalperformance, financial performance, quality of product or service, customer perceived quality, drivers and indicators of quality, cost reduction to overall customer and staff satisfaction. These studies have highlighted the positive relationships (Zu, Robbins, & Fredendall, 2010). Nevertheless the findings of those studies were inconsistent and conflicting among scholars.

Regarding healthcare sectors many scholars have explored the quality management practices contexts in various healthcare organizations. Planning of strategic quality studied by (Wilson & Collier, 2000)showed a significant relationship over operational results. The significant relationship of leadership with healthcare quality improvement is reflected in some studies.Positive relationship of quality improvement and organizational performance was observed in the study of (Abdullah, Shamsuddin, Wahab, & Hamid, 2014). TQM implementation increasesin the quality of outcomes of healthcare organizations benefiting customers and augmenting employees' performance.

However recent studies shows light on the fact that Quality management practices is understood in the healthcare sector as a method for re-organizing the workflow process which is helpful in achieving optimal quality outcome. The essential structural elements of quality management viz., leadership, information management, workforce capital, organization culture, quality assurance system act as a primary facilitator for successful improvement in the performance of the healthcare organization. Researchers have identified many factors as important determinant of quality management practices of the organizations. Accredited quality is one among the crucial factors that influence the export performance of the hospitals. Study at Malaysia denotes that satisfaction of medical travelers is endorsed with perceived service quality and other factors. Commitment of the management, "consumer satisfaction, continuous quality improvement, teamwork, employee's empowerment, training, feedback, and effective communication" are few of the determinant of quality both in manufacturing and service industries as few success factors for manufacturing as well as service industries.A study by (Kamalasanan, Sathiyamurthi, & Subbarayalu, 2020)identified employee participation, training and development, quality assurance system as critical factors for determining quality in healthcare services in private healthcare and as well public healthcare sector hospitals in India. Medical travel clients study examined by (Medhekar, Wong, & Hall, 2020) ranks healthcare quality and accreditation as the second most preferred criteria for selecting the healthcare providers over others.

Above mentioned studies exhibits quality management practices have been studied with varied constructs, however what constitutes QMP has to be viewed carefully. Widespreadreview of literature focused previous studies on quality in healthcare that examined what constitutes key management practices(Sadikoglu & Zehir, 2010). All these studies focused on different set of practices that are vital for

the victorious implementation of quality management practices, however no study has acknowledged set of practices that could commonly pinpoint for fruitful implementation of QMP.

In the light of previous literatures and the nature of repetitive usage present study constructs constitute quality management practices (QMP) were selected for the study. Several dimensions of QMP have been acknowledged in the literature. The factors which had strongest influence was studied across the organization by (Talib, Rahman, & Qureshi, 2011) were the success of QMP; support from management and leadership commitment, customer attention, and partnership with supplier.

Top management support, employee management, supplier management, process management, customer focus and continuous improvement were the essential elements of QMP highlighted by (Burli, Kottursheettar, & Dalmia, 2012) .The nature of frequent usage and repetition in above mentioned studies made the following constructs as most relevant for present study; top management commitment towards quality, employee participation in quality, quality assurance system, and adherence to accreditation program as QMP predictors of improved quality outcomes.

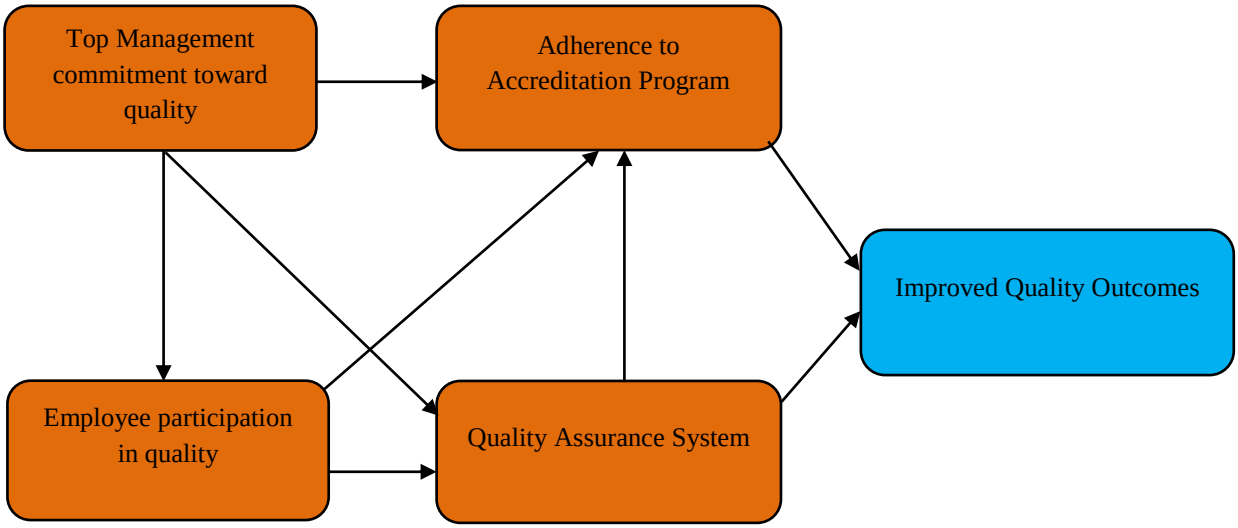
III. CONCEPTUAL MODEL AND RESEARCH OBJECTIVES

Persistent attention is eminently necessary for 'quality' as it binds all elements of healthcare delivery. Ensuring quality not only implies reaching improvement in health outcomes but also encompasses consistency in the outcomes, validated systematic processes, and organization of quality structures that will enable the healthcare organizations to respond to the rapidly changing customer preferences that are dynamic. This is achievable only with concurrent and cooperative implementation of quality management practices. Measurement and monitoring quality management practices are essential to fix accountability and achieve envisaged outcomes. Understanding and examining the influence of the quality management practice in Indian healthcare delivery is needed as many quality accreditation program are emerging. Hence the need for examining the influence of the quality management practices over improved quality outcomes has drawn the attention.

Preceding research highlights the effectiveness of using patient feedback for improving both employee performance and patients'preferences. However, there is a dearth of feedback survey among service providers such as medical, management professionals which is also equally important (Reinders et al., 2011) .This suggestsfrom a managerial perspective, it is also pertinent to examine employees' views in addition to the patients' survey as employeesown the process of quality management. Hence this study has been done in accredited hospitals and the respondents were healthcare professionals comprising doctors, nurses, technicians and administrators with the following objectives.

1. To examine the cohesive influence of quality management practices over improved quality outcomes.
2. To examine the influence of top management commitment towards quality on
    a. employee participation in quality,
    b. adherence to accreditation program
    c. quality assurance system
3. To examine the influence of employee participation in quality on
    a. Adherence to accreditation program
    b. Quality assurance system.
4. To examine the influence of Quality assurance system and adherence to accreditation program on improved quality outcomes.
5. To examine the significance of quality training on employee participation in quality management practices.

CONCEPT MODEL
Fig 1: Concept Model



CONSTRUCT AND HYPOTHESES

TOP MANAGEMENT COMMITMENT TO QUALITY

(Tan, C.K., & Rahman, 2008)emphasizes commitment of leadership that helps to guide and nurture quality in all services of healthcare. Top management commitment is one of the key factors in determining the success of the organizations. Any organizations success could be evidenced when quality management becomes the priority for senior executives.This creates an inextricable linkage between leadership commitment and quality-improvement processes(Waldman et al., 1998).Top management's physical presence, visibility and concern for quality improvement, clear understanding of the vision are reflecting factors of commitment from leadership. (Arshida & Agil, 2013; Taylor & Wright, 2003)supported the importance of leadership or top management commitment towards quality being vital element in their studies. The components used for analyzing the top management commitment construct includes managers having clear vision and consistently participate in quality improvement activities, readily allocates proper resources, manages changes, appropriately use the accreditation results to improve quality, leadership support and good quality environment is maintained for achieving quality improvement outcomes. Thus the hypothesis framed is

H1: Top management commitment has positive and significant influence on Quality Assurance system

H2: Top management commitment has positive and significant influence on employee participation in quality

H3 Top management commitment has positive and significant influence on adherence to Accreditation program

EMPLOYEE PARTICIPATION IN QUALITY

Employee participation could be summarized as employee involvement, contribution, attitude towards positive results, empowerment, and skill enhancement through training and motivation through rewards. Many literatures identifies the crucial elements for positive quality improvement implementation comprisesprimarily of employee's efforts(Naser Alolayyan, Anuar Mohd Ali, & Idris, 2011; Sadikoglu & Zehir, 2010).Similar study emphasizes that successful TQM implementation need sufficient education, training and employee involvement(Mosadeghrad, 2014).

Employees attitude is related with their perception of TQM was observed in the Malaysian study (Ooi, Arumugam, Teh, & Chong, 2008). Studies have focused on training, team work, continuous improvement, customer's satisfaction and top management commitment as predictors of TQM (Hoang, Igel, & Laosirihongthong, 2006).Quality improvement strategies if implemented in right time can influence employees productivity which has direct influence on job satisfaction.While (Henker et al., 2018) addressed that employee involvement in quality planning and showed that healthcare workers' opinion is in support of quality assurance effort made in the organization. In summary the involvement of all participants in healthcare organizations raises as a vital tool which helps in standardizing and assessing the quality of care.

H4 Employee participation has a positive and significant influence on Quality Assurance System

H5 Employee participation has a positive and significant influence on adherence to Accreditation Program

QUALITY ASSURANCE SYSTEM

Quality assurance system focus on activities that are carried out in line with set standards that sustain improved performance, which makes the care provided as effective and safe.Healthcare was focused with delivery of care traditionally in and slowly shifted to delivery of care with quality by ensuring quality employee assessment and quality assurance system (Peabody, Quimbo, & Solon, 2009).In order to achieve steady, efficient and sustainable improvement in the quality of care, it is necessary for the healthcare organizations to create a Quality assurance infrastructure that supports Quality Results(El-jardali, Jamal, Dimassi, Ammar, & Tchaghchaghian, 2008).

Quality assurance helps to ensure required infrastructure, supplies and trained staff are available to facilitate quality of care delivery. It ensures periodic audits by external evaluators to identify the gaps and determine meeting predefined standards, finally to suggest measures for addressing the gaps. Thus the hypothesis framed is;

H6 Quality assurance systemhas a positive and significant influence on adherence to Accreditation Program

H7 Quality assurance systemhas a positive and significant influence on improved quality outcomes

ADHERENCE TO ACCREDITATION PROGRAM

Previous studies have focused on the impact of accreditation program on patient satisfaction (Peabody et al., 2009).Implementing the quality management practices could be evidenced in participating in accreditation programs and gaining good results. Several studies have thrown light on the fact that if accreditation strengthens the adherence to evidence-based standards and improve the commitment to best practice of Quality Improvement then it also contributes to fulfilling patients desire for high-quality services (Pollack & D'Aunno, 2008).Based on the understanding from available literatures the following hypothesis is derived;

H8Adherence to Accreditation program has a positive and significant relationship with improved quality outcomes

IMPROVED QUALITY OUTCOMES

Quality improvement is meant for enhancing safety, effectiveness, and efficiency. According to another author, the systematic measurement of Quality improvement and collecting feedback have been identified as useful tools for assessing the impact of quality management practices which therefore will result in development of specific interventions and strategies for accreditation (Shaller, 2007). Several specific studies, such as (Hijazi et al., 2018), carried out in Jordon , indicate that there are critical success factors of TQM which includes top management commitment; quality assurance framework and patient centeredness. Therefore, some of these factors were adopted for this study to evaluate improved quality outcome in south Indian accredited Hospitals.

The proposed study endeavored to examine the influence of selected four constructs of quality management Practicesover improved quality outcomes in accredited hospitals.

IV. RESEARCH METHODOLOGY

In order to test these hypotheseswe adopted convenient sampling method. In the first stage, list of 60 accredited / NABH hospitals were selected employee through simple random sampling in India. We distributed 10 questionnaires to each of the 60 hospitals for content analysis. Then in the second stage, hospitals with NABH accreditation in south India were approached as this would ensure quality improvement practices implementation in the sample hospitals. The instrument of (El-jardali et al., 2008; Hijazi et al., 2018)was adopted with a total of 23 items under 4 constructs using Likert's scale with 5 points where 5 being most agreeable and 1 as most disagreeable.Pilot study was done among healthcare employees of accredited hospital. Based on the nature of response from the pilot study 520 questionnaire was distributed to nurses, doctors, paramedical technicians and administrative employees having minimum of one year experience in practicing NABH quality management system . 563 completed questionnaires were received and 40 responses were incomplete making 92% of response for the questionnaires.

ANALYSIS AND RESULTS

Recently many researches are using partial least squares structural equation modelling (Rasoolimanesh & Ali, 2018). In light of the growing usage of PLS-SEM in the social sciences, our study used PLS SEM to provide a fresh insight to the analysis(Henseler et al., 2014) suggested the method of Confirmatory Composite Analysis (CCA) for PLS-SEM analysis. Moreover, (J. J. F. Hair, Anderson, L.Tatham, & BlackC., 2011)explained the CCA method with the prevailing approach of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). EFA has generally used to reduce the large number of factors into few dimensions. CFA extensively used in CB-SEM method to confirm the theory.

MEASUREMENT MODEL

Construct	**Internal Consistency Reliability**			**Convergent Validity**
	Cronbach's Alpha≥ 0.7	**rho_A** ≥ 0.7	**Composite Reliability** ≥ 0.7	**Average Variance Extracted (AVE)** ≥ 0.5
Adherence to Accreditation (AAP)	0.882	0.883	0.882	0.601
Employee participation in quality (EP)	0.880	0.883	0.879	0.549
Quality Assurance System (QAS)	0.871	0.872	0.871	0.530
Improved Quality Outcomes (QIO)	0.842	0.843	0.841	0.515
Top Management Commitment (TMC)	0.890	0.891	0.890	0.574

Table: 1 Internal Consistency Reliability

Table:1 indicates Cronbach's values are > 0.6, exhibiting all items under the independent variables selected for the study having high levels of internal consistency reliability(J. F. Hair, Sarstedt, Ringle, & Mena, 2012).AVE values obtained for the study constructs shows values greater than the acceptable employees'hold of 0.5, confirming convergent validity(J. F. Hair et al., 2012).VIF values between the latent variables were found to be less than <5 and which demonstrates there is no collinearity between the independent variables (J. F. Hair et al., 2012).

The items loading or indicator's reliability are above the thumb rule of 0.7 it determines that the items is a reliable indicator for a specific construct (Henseler et al., 2014). The values more than 0.70 demonstrates good indicator reliability of the constructs used for the study. Outer loadings for all five variables are ranging from 0.615 to 0.804 > 0.4 indicating all are significant(J. F. Hair et al., 2012).

	AAP	HRP	QAS	QIO	TMC
AAP1	**0.768**	0.496	0.616	0.691	0.560
AAP2	**0.738**	0.554	0.560	0.657	0.503
AAP3	**0.822**	0.566	0.682	0.714	0.620
AAP4	**0.773**	0.522	0.641	0.680	0.554
AAP5	**0.772**	0.623	0.644	0.640	0.556
HRQI1	0.548	**0.776**	0.618	0.566	0.567
HRQI2	0.573	**0.795**	0.632	0.594	0.532
HRQI3	0.515	**0.720**	0.559	0.528	0.525
HRQI4	0.526	**0.734**	0.548	0.564	0.534
HRQI5	0.557	**0.792**	0.629	0.576	0.590
HRQI6	0.438	**0.616**	0.464	0.484	0.441
QAS1	0.559	0.529	**0.700**	0.627	0.670
QAS2	0.564	0.530	**0.705**	0.633	0.675
QAS3	0.575	0.552	**0.716**	0.703	0.616
QAS4	0.619	0.628	**0.766**	0.692	0.653
QAS5	0.574	0.560	**0.707**	0.610	0.650
QAS6	0.652	0.600	**0.770**	0.675	0.671
QIO1	0.675	0.538	0.712	**0.782**	0.660
QIO2	0.621	0.567	0.664	**0.724**	0.546
QIO3	0.602	0.493	0.670	**0.719**	0.612
QIO4	0.583	0.535	0.598	**0.672**	0.510
QIO5	0.649	0.548	0.587	**0.686**	0.489
TMC1	0.538	0.537	0.691	0.570	**0.747**
TMC2	0.553	0.567	0.724	0.674	**0.805**
TMC3	0.494	0.536	0.641	0.619	**0.731**
TMC4	0.590	0.581	0.697	0.608	**0.790**
TMC5	0.573	0.523	0.683	0.539	**0.741**
TMC6	0.534	0.526	0.656	0.568	**0.729**

Table: 2. Outer Loading Values of the indicators

STRUCTURAL MODEL

The following diagram (fig: 2) explains the independent and dependent variables and their relationships

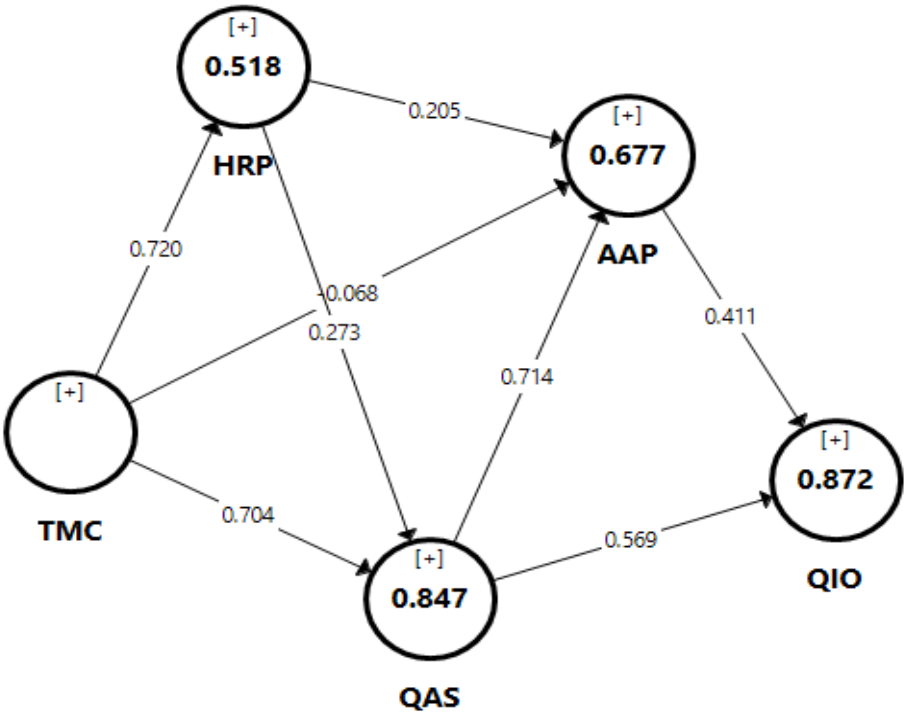


Fig: 2. Result of PLS-SEM path modelling

Table:3 Results of Structural Model – Path coefficient

Hypothesis	Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Result
H1	**TMC -> QAS**	0.704	0.703	0.054	13.066	0.000	**Supported**
H2	**TMC -> HRP**	0.720	0.721	0.029	24.711	0.000	**Supported**
H3	**TMC -> AAP**	-0.068	-0.082	0.165	0.414	0.679	**Not Supported**
H4	**HRP -> QAS**	0.273	0.274	0.057	4.770	0.000	**Supported**
H5	**HRP -> AAP**	0.205	0.202	0.085	2.419	0.016	**Supported**
H6	**QAS -> AAP**	0.714	0.731	0.185	3.864	0.000	**Supported**
H7	**QAS -> QIO**	0.569	0.566	0.079	7.217	0.000	**Supported**
H8	**AAP -> QIO**	0.411	0.413	0.080	5.135	0.000	**Supported**

The path coefficient T-statistics were calculated using a two-tailed t-test with a significance level of 5%, the obtained values are larger than 1.96 for TMC to AAP. The table 4 demonstrates that all quality management practices variables are good predictors of improved quality outcomes except the top management commitment towards adherence to accreditation program. .

The results reveal that positive and significant influence exhibited between all constructs of quality management practices with improved quality outcomes in accredited hospitals. Quality assurance systems present in the accredited hospitals showed significance towards adherence to accreditation program and improved quality outcomes as well. While study observed insignificant influence of top management commitment towards adherence to accreditation program.

However observing the specific indirect effect of the quality management practices influences, top management commitment has a positive influence on adherence to accreditation program with the

contributions of Employee participation in quality as well quality assurance system individually as well combined. The top management commitment with active employee participation and effective quality assurance system could participate in accreditation program confidently and successfully achieve improved quality outcome is apparent in the results. Table 5 illustrates the specific indirect effects.

Path	Specific Indirect Effects
TMC -> HRP -> AAP	0.147
HRP -> QAS -> AAP	0.195
TMC -> HRP -> QAS -> AAP	0.140
TMC -> QAS -> AAP	0.503
TMC -> HRP -> QAS	0.196
HRP -> AAP -> QIO	0.084
TMC -> HRP -> AAP -> QIO	0.061
HRP -> QAS -> AAP -> QIO	0.080
TMC -> HRP -> QAS -> AAP -> QIO	0.058
QAS -> AAP -> QIO	0.293
TMC -> QAS -> AAP -> QIO	0.207
TMC -> AAP -> QIO	-0.028
HRP -> QAS -> QIO	0.155
TMC -> HRP -> QAS -> QIO	0.112
TMC -> QAS -> QIO	0.400

Table: 4. Specific indirect effects

MULTI – GROUP ANALYSIS

The study intended to explore groups of healthcare professionals exposed and not exposed to quality related training and their estimates. For this Partial Least Square – Multi Group Analysis PLS – MGA technique was used. In PLS the multi-group analysis enables testing whether the pre-defined data groups have significant differences while estimating their group-specific parameter.

a) Present study results in table:5 shows the values of bias corrected confidence interval are not overlapping except that of TMC to PAP hence the group specific results of the path coefficient are significantly different(J. F. Hair et al., 2012; Sarstedt, Hair, Ringle, Thiele, & Gudergan, 2016).

Paths	5.0% (Not Trained)	95.0% (Not Trained)	5.0% (Trained)	95.0% (Trained)
AAP -> QIO	0.281	0.457	0.315	0.604
HRP -> AAP	0.166	0.362	0.038	0.343
HRP -> QAS	0.273	0.420	0.088	0.321
QAS -> AAP	0.271	0.495	0.260	0.751
QAS -> QIO	0.431	0.591	0.296	0.607
TMC -> AAP	0.119	0.314	-0.260	0.263
TMC -> HRP	0.598	0.701	0.525	0.687
TMC -> QAS	0.487	0.636	0.552	0.766

Table:5 Results of MGA-Confidence Intervals

b) The result are significant (at the 5% probability of error level, with the p-value being smaller than 0.05 and larger than 0.95 for a certain difference of group-specific path coefficients. (J. F. Hair et al., 2012; Henseler et al., 2014).

Paths	**Path Coefficients-diff (Trained – Not Trained)**	**t-Value (|Trained vs Not Trained|)**	**p-Value (Trained vs Not Trained)**	**Result**
AAP -> QIO	0.097	0.975	0.330	Not significant
HRP -> AAP	-0.069	0.636	0.525	Not significant
HRP -> QAS	-0.147	1.773	**0.077**	**Significant**
QAS -> AAP	0.137	0.976	0.329	Not significant
QAS -> QIO	-0.062	0.635	0.525	Not significant
TMC -> AAP	-0.216	1.564	0.118	Not significant
TMC -> HRP	-0.044	0.767	0.443	Not significant
TMC -> QAS	0.108	1.328	0.185	Not significant

Table:6 Result of MGA- Parametric Test

c) For the difference of group-specific PLS-SEM results that assumes equal variances across groups. Finally Welch-Satterthwait Test is a parametric significance test for the difference of group-specific PLS-SEM results that assumes unequal variances across groups.

Paths	**Path Coefficients-diff (Trained – Not Trained)**	**t-Value (|Trained vs Not Trained|)**	**p-Value (Trained vs Not Trained)**	**Result**
AAP -> QIO	0.097	0.975	0.330	Not significant
HRP -> AAP	-0.069	0.636	0.525	Not significant
HRP -> QAS	-0.147	1.773	**0.077**	**Significant**
QAS -> AAP	0.137	0.976	0.329	Not significant
QAS -> QIO	-0.062	0.635	0.525	Not significant
TMC -> AAP	-0.216	1.564	0.118	Not significant
TMC -> HRP	-0.044	0.767	0.443	Not significant
TMC -> QAS	0.108	1.328	0.185	Not significant

Table: 7 Results of MGA

The results of MGA reveals that quality related training has more influence on the employee participation in Quality assurance system. For other variables the training has caused no influence.

V. DISCUSSION

The study exhibited perception of healthcare professionals about cohesive influence of quality management on improved quality outcomes in accredited hospitals. The result revealed that quality management practices are cohesive in positively influencing the improved quality outcomes, however the top management commitment towards adherence to accreditation program was found to be deficient. Further top management commitment has positive influence over accreditation program through the support of employees' participation and quality assurance system. Further the influence of training was evident among trained professionals in positively perceiving the influence of increased employee participation in quality assurance system.

Manager commitment towards quality improvement examined by (Mosadeghrad, 2014) resulted amplified employees contribution in achieving the desired results. Top management commitment and leadership involvement considered as key by (Wilson & Collier, 2000)to the implementation of Quality

Management practices because, it helps in improving staff participation and achieving the results. Both clinical and administrative staff study done by (Hijazi et al., 2018) resulted that significant top management committed more in achieving quality improvement outcomes. The present study also revealed that top management commitment has positive influence on employee participation, quality assurance system, however for the adherence to accreditation program no direct influence was observed.

Internal quality of an organization is very well affected by the efforts of the human resources that is why it is considered as an important variable(Hani & Alomari, 2012).Healthcare managers always believe that accreditation program acknowledges the quality of services, and at the same time promotes good practices towards staff at all levels of the healthcare organization.

Whereas the performance of the staff and its benefits can deliver largely on the knowledge, skill and motivation of those workforce responsible for delivering quality health services (Weiner, Shortell, & Alexander,1997)and the attitude of various healthcare professionals also very supportive towards accreditation and thereby ensuring implementation quality management practices.Positive,significant relationship was observed from the study done by (Khatri, Gupta, & Varma, 2017)for employee capabilities and quality of patient care. The study results exhibit that employee participation positively influence the quality assurance systems and accreditation program and thereby significantly impacting the improved quality outcome.

The accreditation survey recommendations act as base for training for healthcare professionals to enable them to identify quality improvement opportunities, while other staff are given continuous training to ensure quality improvement is practices across the whole organization. The influence of the traininghas augmented the employee participation in quality assurance program which is reflected in the study results. Further it confirms that inter-departmental cooperation is supported and encouraged which improves the quality of services, employees are provided feedback on their performance encouraged to improve their performance, and the hospital has an effective system to echo staff suggestion to management on how to improve quality and also employees are rewarded, recognized and appreciated for achieving quality improvement, which are key to achieving the employee efforts towards quality.

Thailand survey revealed that more than 90% of the healthcare professionals perceive that problem exist with participation in accreditation process(El-jardali et al., 2008). Another study revealed along with the participation in accreditation programs adherence to quality standards improves operational efficiency of human resources, enhances patient care service and reduces rates of error in laboratory (Ghareeb, Said, & El Zoghbi, 2018).Employees' participation in accreditation process has a significant correlation with quality results(El-jardali et al., 2008). based on these studies, present study confirms that adherence to accreditation program enables improved quality outcomes in patient care, motivates staff, encourages teamwork and cooperation, enables better response to patients, ensures training is provided continuously, and makes networking with other partners possible. Physicians are not in favor of quality assurance framework system as they don't receive training during their education(Hijazi et al., 2018) but the nurses were significant towards quality assurance system in a study by(El-jardali et al., 2008).

VI. IMPLICATIONS

The present study supports that employee participation in quality management practices, assurance system and accreditation program are positively significant suggesting that it's vital for ensuring quality in healthcare delivery. The findings support the existing circumstantial evidence in the literature that indicates lacuna in the attention paid to human resource management may end up with disorganized and deprived quality outcomes in healthcare organizations (Huq, 2005).Proactive behavior of the healthcare human resources plays a mediating role between the positive relationship of employee capabilities and quality of patient care(Khatri et al., 2017).Present study helps in understanding that better strategies to be adopted for augmenting employee participation towards quality. Employees' participation and involvement in quality management activities of an organization stands as a central binding thread between quality management practices, quality assurance system and overall quality improvement. This emphasizes importance of employee participation as a vital predictor in the examination of organizations performance in the context of quality in service delivered. Employees not only get involved in quality management activities but take responsibility for the organizations actions and finally improves the

qualityof the organisation (Panda & Kondasani, 2017). The present study results also in support of the prevailing literatures. Improved leadership can produce a direct and positive impact on the quality management practices variables. This result confirms that top management leadership drives quality assurance system, and supports the findings of (Marley, Collier, & Goldstein, 2004).In order to achieve the desired outcomes employees need to be motivated to adopt to a systematic approach this is very well done by continuous training programs. Training programs helps the workforce to acquire new or update existing knowledge and skills in their field ultimately improving the organizational efficiency. This is very well addressed in the study of (Sokovic, Pavletic, & Pipan, 2010)that all levels of across the organization needs essential and adequate training. Developing staff competency is a prime and vital predictive factor wile examining the quality of patient care(Hussein & Hussein, 2014). The MGA results throws light that training has augmented the participation of employees in quality assurance system emphasizing the importance of continuous training.

This study revealed the cohesive influence of quality management practices on improved quality outcomes, allowing the top management to deliberately invest and mobilize all necessary resources towards quality improvement practices. Top management realization will also motivate them towards remaining the primary driving force behind quality improvement practices. Many studies have revealed that lack of commitment of managers and physician was the main barriers for improved organization performance that can be overcome through clear conceptualisation and continuous training.Healthcare managers should envisage the challenges in the management of human resource and develop appropriate management practices to overcome challenges. They should create a safe environment within which employees voluntarily adopt to the quality culture and work together for a improved quality outcome. Not only top management but participation of Medical professionals in the quality systems will be achieved, despite the hesitation they hold on the increase in documentation works related to quality accreditation. Increased participation of medical professionals is a sign of achieving successful quality outcomes. The other paramedical professionals will be motivated by recognizing their participation in implementing quality management systems. Quality management practices advocates theimportance of paramedical professionals participation by emphasizing the importance of their role in the healthcare delivery. Finally holding clear vision about quality in services and extending consistent participation by senior management team is merited. Exhibitinghighly visible leadership while ensuring an effective environment that supports quality improvement in highly recommend for the top management of the healthcare organisations. The study reflects that positive perception of healthcare professionals about the cohesive influence of quality management practices would help healthcare organisations to shape the business ability of hospitals. Therefore, it is important to consider integrating the healthcare workforce perceptions in the development of healthcare quality standards.

VII. CONCLUSION

The implementation of quality management practices in healthcare organizations necessitates commitment and support from its leaders, and motivated human resources. Effective quality assurance system with the backing of a well renowned accreditation program also proves to be positively impacting the quality improvement. Well established strategies are essential to strengthen the quality management practices which includes strengthen leadership and reputable quality culture across the organization. Researches regarding the influence of quality management practices in bringing out desired results in upcoming accredited hospitals inclusive of government healthcare organizations are still limited, fingeringthe demand for future studies. The findings of the study are likely to deliver valuable learnings for healthcare organizations that are preparing to implement quality management practicesaiming to aspire quality accreditations. To conclude, the findings of this study are also significant for future efforts to further explore the deficiency of top management commitment towards accreditation program. The study echoes to underpin the healthcare team to increase the cohesiveness of quality management practices. .

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