

QUALITY MANAGEMENT SYSTEM AND PATIENT'S OUTCOME: THE CASE OF HEALTHCARE INSTITUTIONS IN REGION IV-A

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Abstract

The study Quality Management System and Patient's Outcome: The Case of Healthcare Institutions in Region IV-A aimed to know the respondent's profile and HCIs in Region IV A, assess the QMS level of practice, determine the level of patient outcome perception, and to ascertain significant difference and relationship of the same upon grouping of respondents into profile. Finally, to propose a Quality Management System Approach for the Healthcare Institutions in Region IV-A.

This study used the mixed methodology (qualitative and quantitative) research to identify and enhance the management system of the Level 2 and Level 3 HCIs from Executive, Medical Service, Nursing Service Administrative Office and other job-related works.

Most of 305 respondents are female, with permanent work status. employed for the last ten years or less, and mostly from Batangas province. QMS practice for sex and length of service was revealed no significant differences, there are significant differences as to province, and there are significant differences on all the dimensions of quality management as to employment status. On Patient Outcome as to for the sex, length of service, and province was revealed that there are no significant differences on the responses across all dimensions. QMS and patient outcome are highly relevant.

This study is beneficial to the stakeholders of the HCIs and to the future researchers in benchmarking the standards in QMS and patient outcome.

The data above can be inferred that respondent's profile as to sex and length of service do not affect, employment status is affective, and there is varying perception on QMS as to province. Sex, length of service and province do not affect the perception of respondents on patient outcome. Perception of patient outcome of respondents varies when they were grouped according to employment status. The Relationship Between QMS and Patient Outcome, leadership engagement of people, process approach, evidence-based DM, and relationship management all impacts significantly patient outcome.

Keywords: Quality Management System; Patient Outcome; Healthcare Institutions; Healthcare Practitioners/Workers; Region IVA;

Introduction

Today's healthcare industry is a vibrant, fascinating industry with numerous chances and obstacles. Healthcare is an industry that requires ongoing enhancements. To provide patients with exceptional care, all regulatory standards must be adhered to with the utmost accuracy. The quality management system is integral to the everyday operations of the healthcare business and assists professionals in achieving their quality objectives. For the optimum performances of the entire hospital, a Quality Management for Healthcare also identifies the areas where services must be significantly improved.

A Quality Management System (QMS) combines the organization's internal processes and aims to give a process-based approach to project execution. A process-based QMS helps firms to identify, measure, control, and enhance the essential business process that will favourably result in enhanced business performance.

Numerous clients are willing to transfer providers if a service falls below par, placing enormous pressure on firms to maintain the relevance of their outputs (products or services). Customers consume an organization's outputs and are therefore essential to the survival of most firms. Therefore, organizations must design and promote initiatives that address their requirements (Jones & George, 2011). For a business to provide excellent service, it must identify and comprehend the aspects of quality that matter most to its clients (Metters, King, & Pullman, 2006).

Systems enable individuals to work in the most efficient manner by informing them of the steps they must take to produce goods and services of the needed quality (Barnes, 2008). This is essential since firms are expected to be accurate, dependable, and deliver the services they advertise (Zeithmal & Bitner, 2003). It is part of the DOH licensing processes for hospitals, the QMS in healthcare services can be measured by patient outcomes, which are monitored by the hospital to discover and diagnose hindering restrictions in healthcare service.

The ultimate objective of healthcare providers is to help patients recover as quickly and without complications as possible. This requires a QMS that effectively tracks, monitors, and comprehends where the patient is in the healthcare cycle in order to obtain the best potential outcome. QMS plays a crucial role in the delivery of care by ensuring that the end product keeps patients safe and healthy to the greatest extent possible.

This study is conducted to assess the quality management system standards of the healthcare institutions in region IV-A as to compliance and/or in comparison to Quality Management Standards and its relevance to the Patients Outcomes.

Methods

The study used the mixed methodology (quantitative and qualitative) research to identify the level of practice of QMS of Level 2 and Level 3 Healthcare Institutions and to propose a Quality Management Operations Approach for the Healthcare Institutions in Region IV A.

The researcher used the descriptive design and execute the questionnaires and interview guide sheet which will be the main instrument to gather the pertinent information.

Cross analysis and triangulations of quantitative and qualitative data were done to validate the perceived level of practice of QMS and patient outcome. Tallying and tabulation of responses were done for quantification of data through percentage, frequency, weighted mean, standard deviation, and single factor

analysis of variance. Standard Deviation formula that was used to compute the dispersion on variability of the responses around the mean. Analysis of Variance (ANOVA) was employed to identify if there are significant differences on the responses when respondents are grouped by profile.

In order to establish if there are significant relationship between variables, and to further investigate the level of practice of quality management system on patient outcome, the multiple regression analysis was performed (i.e. particularly using structural equation modelling or SEM technique). The SEM revealed that all dimensions of quality management impact patient outcome significantly, except for the dimension of “improvement” since its p-value computation is more than the level of significance ($\alpha = 0.05$).

Results

Part 1.A: Profile of the Healthcare Institutions in Region IV-A

Table 1 Profile of the Healthcare Institutions of Region IV-A presents profiling of the 43 healthcare institutions in Region IVA

HCI's Profile	Details	Frequency (n = 305)	Percentage
Category Level	Level 2	37	86 %
	Level 3	6	14 %
ISO Certification	ISO	19	44 %
	Non-ISO	24	56 %
Bed Capacity	Less than 50	8	19 %
	51-100	17	40 %
	More than 100	18	41 %
Years in Service	Less than 10	6	14 %
	11-30	15	35 %
	31-60	14	33 %
	61-90	6	14 %
	91 above	2	4%

A total of forty-four Healthcare Institutions (HCIs) consented in participating in this study. Their background characteristics are presented in Table 1 above. From the table, majority of the HCIs have a service capability as to category level, eighty-six percent are level 2 and 14%, level 3. Forty-four percent are ISO certified and fifty-six percent of the HCIs are non-ISO certified. Most of the 43 HCIs are operating more than 100 bed capacity having forty-one percent and the least operating for less than 50 bed capacity is nineteen percent. As to years in operations, majority are operating from 11 to 60 years, garnered a percentage of thirty-five and thirty-three, respectively.

Part 1.B: Profile of Respondents

Table 2: Profile of Respondents

A total of three hundred five individuals consented in participating in this study. Their background characteristics are presented in Table 2 below.

As can be seen from the table, majority of the respondents are female accounting to sixty percent. While as to the employment status distribution, eighty-two percent of the respondents are recorded to be permanently employed. A great majority of the those who were surveyed have been in their current employment for the last ten years or less. Many of the respondents are from Batangas province, while the least number of respondents are from the province of Quezon.

Profile	Details	Frequency (n = 305)	Percentage
Sex	Male	122	40%
	Female	183	60%
Employment Status	Permanent	249	82%
	Contractual	56	18%
Length of Service	Less than 5 years	114	37%
	5 – 10 years	61	20%
	11 – 15 years	80	26%
	16 – 20 years	37	12%
	More than 20 years	13	4%
Province	Cavite	59	19%
	Laguna	85	28%
	Batangas	111	36%
	Quezon	50	17%

Part 2: Level of Practice of Quality Management System

The level of practice on quality management system is measured through the following dimensions; customer focus, leadership, engagement of people, process approach, improvement, evidence-based decision making, and relationship management. The results are as follows.

Table 3: Level of Practice on Quality Management System (Customer Focus)

Indicators	Weighted Mean	Verbal Interpretation
THE ORGANIZATION:		
CF. recognizes direct and indirect customers as those who receive value from the organization.	4.5574	Highly Practiced
CF2. understands customers' current and future needs and expectations	4.5508	Highly Practiced
CF3. links the organization's objectives to customer needs and expectations	4.5443	Highly Practiced
CF4. communicates customer needs and expectations throughout the organization	4.4754	Highly Practiced
CF5. plans, designs, develops, produces, delivers and supports goods and services to meet customer needs and expectations	4.5148	Highly Practiced
CF6. measures and monitors customer satisfaction and take appropriate actions	4.4918	Highly Practiced
CF7. determines and take actions on interested parties' needs and expectations that can affect	4.4951	Highly Practiced
General Weighted Mean	4.5185	Highly Practiced

Table 3 above shows the perception of respondents on the level of practice of quality management as to customer focus. The indicator "CF1" was rated greatest by the respondents with a weighted mean of 4.5574 which is narratively described as "strongly agree". This is followed by "CF2" with a weighted mean of 4.5508 (strongly agree). Least rated indicator is "CF4" with a weighted mean of 4.4754 (strongly agree).

Overall, customer focus as a dimension of quality management got a general weighted mean of 4.5185 (strongly agree). Stated on the seven management principles studied by the international experts of ISO/TC 176, "Customer focus" dealt with customer needs and expectations to retain and develop relationship among customers towards the improvement of long-term organization's success. With the above findings, Healthcare Institutions in Region IV-A are practicing a quality management specifically the customer focus, are addressing the needs of the customers, and focusing on the long-term organization's success.

Table 4: Level of Practice on Quality Management System (Leadership)

Table 4 below shows the perception of respondents on the level of practice of quality management as to leadership. The indicator "L1" was rated greatest by the respondents with a weighted mean of 4.5344 which is narratively described as "strongly agree". This is followed by "L4" with a weighted mean of 4.5115 (strongly agree). Least rated indicator is "L6" with a weighted mean of 4.4131 (strongly agree).

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
L1. communicates the organization's mission, vision, strategy, policies and processes throughout the organization	4.5344	Highly Practiced
L2. create and sustains shared values, fairness and ethical models for behavior at all levels of the organization	4.4557	Highly Practiced
L3 establishes a culture of trust and integrity	4.4787	Highly Practiced
L4. encourages an organization-wide commitment to quality	4.5115	Highly Practiced
L5. ensures that leaders at all levels are positive examples to people in the organization	4.4951	Highly Practiced
L6. provides people with the required resources, training and authority to act with accountability	4.4131	Highly Practiced
L7. inspires, encourages and recognizes people's contribution encourage an organization-wide commitment to quality	4.4951	Highly Practiced
General Weighted Mean	4.4833	Highly Practiced

Overall, leadership as a dimension of quality management got a general weighted mean of 4.4833 (strongly agree). The appreciation of a system has the same underlying principle as ISO 9001:2015 principle on leadership. According to Deming, it is top managements responsibility to optimize the organizations system. This also holds true for the ISO certification which requires authentic approaches for making decision and the requirement of measurement analysis. Leadership in the Healthcare Institutions of Region IV-A are effective in the implementation of ISO 9001:2015 indicators which are relevant for certification of the same. The healthcare institutions in region IV A are adept in practicing the mentioned indicators above thus, those HCIs that are not yet certified are deemed qualified for the possible certification.

Table 5
Level of Practice on Quality Management System (Engagement of People)

Table 5 below shows the perception of respondents on the level of practice of quality management as to engagement of people. The indicator "EP1" was rated greatest by the respondents with a weighted mean of 4.5148 which is narratively described as "strongly agree". This is followed by "EP2" with a weighted mean of 4.4820 (strongly agree). Least rated indicator is "EP6" with a weighted mean of 4.3869 (strongly agree).

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
EP1. communicates with people to promote understanding of the importance of their individual contribution	4.5148	Highly Practiced
EP2. promotes collaboration throughout the organization	4.4820	Highly Practiced
EP3. facilitates open discussion and sharing of knowledge and experience	4.4590	Highly Practiced
EP4. empowers people to determine constraints to performance and to take initiatives without fear	4.4033	Highly Practiced
EP5. recognizes and acknowledges people's contribution, learning and improvement	4.4721	Highly Practiced
EP6. enables self-evaluation of performance against personal objectives	4.3869	Highly Practiced
EP7. conducts surveys to assess people's satisfaction, communicate the results, and take appropriate actions	4.4066	Highly Practiced
General Weighted Mean	4.4464	Highly Practiced

Overall, engagement of people as a dimension of quality management got a general weighted mean of 4.4464 (strongly agree).

In the seven management principles studied by international experts of ISO/TC 176, "Engagement of people" is similar to QMP 2, emphasizing the engagement and contribution of all key players in the organization. The organization need its manpower to be competent, engaged and empowered in the delivery of value. Competent, engaged and empowered manpower in the organization will strengthen its capacity to create value. It is essential to involve all people at all levels and to respect them as individuals to manage an organization effectively and efficiently. Recognition, empowerment and enhancement of skills and knowledge facilitate the engagement of people in achieving the objectives of the organization. Data above showed that all the people within the organization have contribution, engaged, competent, and empowered in the delivery of service value. They have all given the privileges, recognition and enhancement of skills and knowledge to reach the common objectives of the HCI, thus highly practiced the engagement of people.

Table 6
Level of Practice on Quality Management System (Process Approach)

Table 6 below showed the perception of respondents on the level of practice of quality management with respect to process approach. The indicator "PA1" was rated greatest by the respondents with a weighted mean of 4.5016 which is narratively described as "strongly agree". This is followed by "PA2" with a weighted mean of 4.4820 (strongly agree). Least rated indicator is "PA4" with a weighted mean of 4.4754 (strongly agree).

Overall, process approach as a dimension of quality management got a general weighted mean of 4.4046 (strongly agree). "Process approach" shows clarity on how different activities are developed into processes that are combined together in order to reach certain objectives, and how staff members and teams are engaged in order to uplift efficiency and investigate the non-target-leading processes. Data gathered showed that the HCIs of Region IV-A have clearly communicated the role of each worker within in the organization. Ideas and roles are executed well through a well-defined process of every activity necessary to achieve the organizations' goal.

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
PA1. defines objectives of the system and processes necessary to achieve them	4.5016	Highly Practiced
PA2. establishes authority, responsibility and accountability for managing processes	4.4820	Highly Practiced
PA3. understands the organization's capabilities and determine resource constraints prior to action	4.4590	Highly Practiced
PA4. determines process interdependencies and analyze the effect of modifications to individual processes on the system as a whole	4.4046	Highly Practiced
PA5. manages processes and their interrelations as a system to achieve the organization's quality objectives effectively and efficiently	4.4525	Highly Practiced
PA6. ensures the necessary information is available to operate and improve the processes and to monitor, analyze and evaluate the performance of the overall system	4.4230	Highly Practiced
PA7. manages risks that can affect outputs of the processes and overall outcomes of the quality management system	4.4426	Highly Practiced
General Weighted Mean	4.4522	Highly Practiced

Table 7
Level of Practice on Quality Management System (Improvement)

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
I1. promotes establishment of improvement objectives at all levels of the organization	4.5115	Highly Practiced
I2. educates and trains people at all levels on how to apply basic tools and methodologies to achieve improvement objectives	4.4820	Highly Practiced
I3. ensures people are competent to successfully promote and complete improvement projects	4.4721	Highly Practiced
I4. develops and deploys processes to implement improvement projects throughout the organization	4.4459	Highly Practiced
I5. tracks, reviews and audits the planning, implementation, completion and results of improvement projects	4.4033	Highly Practiced
I6. integrates improvement considerations into the development of new or modified goods, services and processes	4.4754	Highly Practiced
I7. recognizes and acknowledges improvement	4.5180	Highly Practiced
General Weighted Mean	4.4726	Highly Practiced

Table 7 above showed the perception of respondents on the level of practice of quality management with respect to improvement. The indicator "I7" was rated greatest by the respondents with a weighted mean of 4.5180 which is narratively described as "strongly agree". This is followed by "I12" with a weighted mean of 4.5115 (strongly agree). Least rated indicator is "I4" with a weighted mean of 4.4459 (strongly agree).

Overall, improvement as a dimension of quality management got a general weighted mean of 4.4726 (strongly agree).

ISO 9001:2015 as a standard is the only one that can be certified, although not obligatory. It identifies the criteria for a QMS and is applicable for any organization, regardless size or industry. Today, higher than 1M organizations from the 170 countries have been accredited to ISO 9001 and come after the principles with focus on customers, the top management being the key role of motivation on the QMS, the

process approach and continual improvement methods. (ISO 2016g.) The HCIs in Region IV-A are highly practicing continual improvement among their workers. All the set indicators above are highly seen in their practices and greatly implies that they are open for improvement.

Table 8
Level of Practice on Quality Management System (Evidence-Based Decision Making)

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
EB1. determines, measures and monitors key indicators to demonstrate the organization's performance	4.4984	Highly Practiced
EB2. makes all data needed available to the relevant people	4.4197	Highly Practiced
EB3. ensures that data and information are sufficiently accurate, reliable and secure.	4.4328	Highly Practiced
EB4. analyzes and evaluates data and information using suitable methods	4.4230	Highly Practiced
EB5. ensures people are competent to analyze and evaluate data as needed	4.4197	Highly Practiced
EB6. makes decisions and take actions based on evidence, balanced with experience and intuition	4.4918	Highly Practiced
General Weighted Mean	4.4476	Highly Practiced

Table 8 above amplifies the perception of respondents on the level of practice of quality management with respect evidence-based decision making. The indicator "EB1" was rated greatest by the respondents with a weighted mean of 4.4984 which is narratively described as "strongly agree". This is followed by "EB6" with a weighted mean of 4.4918 (strongly agree). Least rated indicator is "EB2" with a weighted mean of 4.4197 (strongly agree).

Overall, evidence-based decision making as a dimension of quality management got a general weighted mean of 4.4476 (strongly agree).

"Evidence-based decision making" sum-up an elevated level of confidence relative to the process of making decision and ends to more foreseen outcomes as discussed in the seven management principles studied by international experts of ISO/TC 176.

Future planning or long-term plan are considered by the HCIs in Region IV-A. all the relevant measures to meet the success are well-determined, they have verified data that are available for an effective decision making, and are ensuring to have qualified people to perform necessary reviews and validation of pertinent data to be used in the decision-making process.

Table 9
Level of Practice on Quality Management System (Relationship Management)

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
RM1. determines relevant interested parties (such as suppliers, partners, customers, investors, employees, and society as a whole) and their relationship with the organization	4.4295	Highly Practiced
RM2. determines and prioritizes interested party relationships that need to be managed	4.4230	Highly Practiced
RM3. establishes relationships that balance short-term gains with long-term considerations	4.3934	Highly Practiced
RM4. pools and shares information, expertise and resources with relevant interested parties	4.3508	Highly Practiced
RM5. measures performance and provide performance feedback to interested parties, as appropriate, to enhance improvement initiatives	4.5508	Highly Practiced
RM6. establishes collaborative development and improvement activities with suppliers, partners and other interested parties	4.4164	Highly Practiced
RM7. encourages and recognizes improvements and achievements by suppliers and partners	4.3902	Highly Practiced
General Weighted Mean	4.4476	Highly Practiced

Table 9 above presented the perception of respondents on the level of practice of quality management as to relationship management. The indicator "RM5" was rated greatest by the respondents with a weighted mean of 4.5508 which is narratively described as "strongly agree". This is followed by "RM1" with a weighted mean of 4.4295 (strongly agree). Least rated indicator is "RM3" with a weighted mean of 4.3934 (strongly agree).

Overall, relationship management as a dimension of quality management got a general weighted mean of 4.4476 (strongly agree).

Quality management principle 7 or “Relationship management” covers phases of relationship to the external and internal stakeholders enable to improve trust, communication, understanding and considering opinions, that can lead to an improved communication with importantly influencing parties. (ISO 2015a, 4-16), (ISO 2015b, 4-5.) From the data gathered, it implies that the HCIs in Region IV-A had clearly identified the internal and external factors which are significant in serving its stakeholders.

Summary Table 10 (Quality Management System)

Dimension	General Weighted Mean	Narrative Description
Customer Focus	4.5185	Highly Practiced
Leadership	4.4833	Highly Practiced
Improvement	4.4726	Highly Practiced
Process Approach	4.4522	Highly Practiced
Evidence-Based Decision Making	4.4476	Highly Practiced
Relationship Management	4.4476	Highly Practiced
Engagement of People	4.4464	Highly Practiced
General Weighted Mean	4.466886	Highly Practiced

Table 10 above amplifies the summary of the perception of respondents on the level of practice of quality management with respect to quality management system of the HCIs in Region IV-A. The dimension “Customer Focus” was rated highest by the respondents with a weighted mean of 4.5185 which is narratively described as “strongly agree”. This is followed by “Leadership” with a weighted mean of 4.4833 (strongly agree). Least rated dimension is “Engagement of People” with a weighted mean of 4.4464 (strongly agree).

Standard ISO 9001 originates from the seven quality management principles, and explains a approach to provide guidelines in creating sustainable value for organization’s customers. The principles facilitate reorganization of processes and focus on goals of organizations.

The same principles are formulated and continues studies and reviews by experts internationally of ISO/TC 176, the technical committees of ISO, responsible for ISO 9001. Its coverage defines the standards of QMS. It serves as adviser to all ISO technical committees to make certain integrity of QMS standards and the its compliant to QMS ISO sector policy. (ISO 2016d.)

ISO 9001 outlines the guidelines for organizations to suffice the customer needs and to establish a highly dependable quality-based customer-relationships. ISO 9001 QMS leads to developed efficiency of processes, which means a continual improvement within an organization towards customer needs, stakeholder interests and organizational goals. One can see ISO 9001 as a “business management tool”. According to a Harvard Business School study, benefits for organizations which have implemented ISO 9001, are among others, a higher economic growth and survival rate within markets, higher salaries, increased performance efficiency, whereas waste rates decrease. The study compared 916 ISO 9001 “adopters” against almost 18,000 “non-adopters”. (ASQ 2016c.)

These studies strengthen the needs of Quality Management System to be implemented by any institutions, specifically to the HCIs in Region IV-A.

Implementation of QMS will be standardized the quality of services among the HCIs stakeholders. The table above shows that HCIs compliance to the ISO standards, thus all the dimensions are highly practiced. Moreover, the gathered data from the interview of the Medical/Hospital Directors/Chiefs shown that the HCIs are practicing the QMS in their institutions. Such measures were done for the institutions to be compliant to the QMS processes. They also believe that QMS is a tool for the continuous re certification of those already certified, otherwise a good reference for those aspiring to be certified.

Part 3: Level of Patient Outcome

The perceived level of patient outcome is measured through the following dimensions; namely – mortality, readmission and care (safety, timeliness and effectiveness) The results are as follows.

Table 11
Level of Patient Outcome (Mortality)

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
M1. understands how the hospital compares to the national average mortality rate for each condition	4.3475	Highly Practiced
M2. sets a specific, visible, and measurable goal with timelines for reducing mortality	4.3443	Highly Practiced
M3. decides where to focus your hospital's improvement efforts	4.3869	Highly Practiced
M4. consider cross-cutting concerns	4.3770	Highly Practiced
M5. aligns the quality improvement activities and create a visual map	4.3738	Highly Practiced
M6. establishes an organized process for reviewing mortality	4.3148	Highly Practiced
M7. integrates these improvement efforts into your hospital's quality improvement program and develop an action plan for implementing these strategies	4.3443	Highly Practiced
M8. is accountable. Put this on the agenda of your board and senior leadership meetings, and actively review progress (at least monthly)	4.3115	Highly Practiced
General Weighted Mean	4.3551	Highly Practiced

Table 11 above amplifies the perception of respondents on the level of patient outcome with respect to mortality. The indicator "M3" was rated greatest by the respondents with a weighted mean of 4.3869 which is narratively described as "strongly agree". This is followed by "M4" with a weighted mean of 4.3770 (strongly agree). Least rated indicator is "M8" with a weighted mean of 4.3115 (strongly agree).

Overall, mortality as a dimension of patient outcome got a general weighted mean of 4.35531 (strongly agree).

Based on the study of Azuh et. Al (2017), mortality and morbidity among mothers reflect to the status of the health of the population and the quality of life across the country. Several factors like: sociocultural, economic and logistics, combined with an overwhelming poor health service, is a basic challenge in several nations.

Kim et. Al (2016) stated that if there are commonalities between optimism and broader health outcomes. It leads toward a broader intervention that develop public health and strengths. There are studies at present that tested the relevance between optimism and cause-specific mortality in women after considering the role of potential confounding (socio-demographic characteristics, depression) and intermediary (health behaviors, health conditions) variables.

The above studies imply that mortality is one of the best indicators for determining wellness of patient outcomes upon delivery of healthcare services to patients. Moreover, HCIs practices towards the identification of its mortality rate are highly effective and in compliance to the set indicators above. The gathered result guarantees that the HCIs are well-recognizing and practicing the necessary practice of processes for determining the HCI's mortality rate in which can be used for improvement of healthcare services.

Table 12
Level of Patient Outcome (Readmission)

Table 12 below amplifies the perception of respondents on the level of patient outcome with respect to readmission. The indicator "RE2" was rated greatest by the respondents with a weighted mean of 4.4918 which is narratively described as "strongly agree". This is followed by "RE3" with a weighted mean of 4.4656 (strongly agree). Least rated indicator is "RE5" with a weighted mean of 4.4098 (strongly agree).

Overall, readmission as a dimension of patient outcome got a general weighted mean of 4.4492 (strongly agree).

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
RE1. makes sure that patients and their caregivers understand the care plan following a hospital stay is frequently cited as an effective method for preventing a relapse	4.4525	Highly Practiced
RE2. ensures that patients understand their medication schedule and are prepared to follow it as prescribed	4.4918	Highly Practiced
RE3. is approaching healthcare with empathy and two-way conversations can help lead to more positive outcomes	4.4656	Highly Practiced
RE4. when creating an at-home care plan, take into consideration any other symptoms they may need to manage alongside the reason for the recent hospitalization	4.4262	Highly Practiced
RE5. ensures that patients are following the in-home care instructions and help navigate any challenges a patient may be experiencing	4.4098	Highly Practiced
General Weighted Mean	4.4492	Highly Practiced

Khera and Krummhols (2018) implied that the risk of readmission an emerging way to conclude quality in the past. Preventive readmissions speak for the unfolding of medical conditions in severity during the recovery period that critical care is essential. Even though few short-term health declines resulted to readmission need are unpreventable, evidences showed that the risk on 30-day readmission can be reduced with increase quality of care. Recently, the Centers for Medicare and Medicaid Services has given incentives to lessen such preventable readmissions on specific key health conditions.

Readmission among the HCIs is seen to be preventive by the standard practices of the mentioned indicators above. Patients are well-informed during and upon discharge by the HC workers.

Table 13
Level of Patient Outcome (Safety of Care)

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
S1. creates specific job titles and training initiatives designed to enhance staff and have leadership instill in organizational culture prioritizing patient experience	4.4689	Highly Practiced
S2. creates communication channels that encourage transmission of ideas between patient and healthcare providers	4.4393	Highly Practiced
S3. promotes information symmetry by giving patient and healthcare providers access on the same date and knowledge	4.4164	Highly Practiced
S4. gives patients locus for control of care decisions by using information transparency and communication to enhance knowledge and participation	4.4295	Highly Practiced
S5. has proactive, consumer-driven approach to care, emphasizing responsiveness and timeliness to consumer wants and needs	4.5508	Highly Practiced
S6. designs a supportive physical, technological, and psychological setting that forms a comfortable atmosphere for clinical and procedural processes to generate quality outcomes	4.5770	Highly Practiced
S7. reduces Health care-associated infections (HAIs) by increasing hand washing compliance to keep patients safe	4.5082	Highly Practiced
General Weighted Mean	4.4843	Highly Practiced

Table 13 above presented the perception of respondents on the level of patient outcome as to safety of care. The indicator “S6” was rated greatest by the respondents with a weighted mean of 4.5770 which is narratively described as “strongly agree”. This is followed by “S5” with a weighted mean of 4.5508 (strongly agree). Least rated indicator is “S3” with a weighted mean of 4.4164 (strongly agree).

Overall, safety of care as a dimension of patient outcome got a general weighted mean of 4.4843 (strongly agree).

Cited in the article, “What is patient experience? (2016), it says that the evaluation of experiences of patients together with another elements such as safety and effectiveness of care is necessary to provide a complete sketch of good quality of healthcare.

Piccardi et. al (2018) mentioned that safety of patient is a quality benchmark for primary care, and it shall be on the basis of an individual needs rather than differences between social groups. According to the findings of this organized review, unprotected social groups are more favourably to experience adverse patient safety events in primary care. Improving awareness of family doctors this partiality is an important initial step towards addressing and improving safety of patient.

It is a good practice by the HCIs in Region IV-A to ensure the safety of care given to all the patients.

Table 14 Level of Patient Outcome (Timeliness of Care)

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
T1. ensures that patients never have to wait while staff search for equipment, automate PAR-level management to ensure equipment distribution is optimized	4.3115	Highly Practiced
T2. enhances staff efficiency by automating call cancellations, time stamp staff presence, facilitate staff rounding (proven to reduce number of patient falls)	4.3148	Highly Practiced
T3. automatically records and analyses operational data and document patient milestones	4.3541	Highly Practiced
T4. timely and appropriate public health action taken based on the findings	4.3607	Highly Practiced
General Weighted Mean	4.3553	Highly Practiced

Table 14 amplifies the perception of respondents on the level of patient outcome with respect to timeliness of care. The indicator “T4” was rated greatest by the respondents with a weighted mean of 4.3607 which is narratively described as “strongly agree”. This is followed by “T3” with a weighted mean of 4.3541 (strongly agree). Least rated indicator is “T1” with a weighted mean of 4.3115 (strongly agree).

Overall, timeliness of care as a dimension of patient outcome got a general weighted mean of 4.3553 (strongly agree).

According to Chu and Harder (2020), The National Academy of Medicine defines timely treatment as reducing waiting and somewhat detrimentally impede both people who acquire and those who provide care. Although there is lack of timeliness happens during the assessment or treatment phases of health care, both can result in negative consequences. Dependent on the severity of the medical problem, delays in care can be classified as urgent, emergent, subacute, acute, or chronic, with timeliness defined in seconds, minutes, hours, days, weeks, months, and years. Access to health-care services is the first step toward timely treatment. Once health care is obtained, health care workers and systems in which they work must evaluate and treat patients as soon as possible.

Timeliness is significant in all aspects of care in measuring the healthcare efficiency. Such delays could impede the delivery of quality healthcare to have favorable patients’ outcomes. Preventive measures to reach the chronic stage of illnesses are implemented by the HCIs in Region IV-A.

Table 15

Level of Patient Outcome (Effectiveness of Care)

Table 15 below presented the perception of respondents on the level of patient outcome with respect to effectiveness of care. The indicator “EC5” was rated greatest by the respondents with a weighted mean of 4.6230 which is narratively described as “strongly agree”. This is followed by “EC4” with a weighted mean of 4.5344 (strongly agree). Least rated indicator is “EC2” with a weighted mean of 4.3770 (strongly agree).

Indicators THE ORGANIZATION:	Weighted Mean	Verbal Interpretation
EC1. has systematic collection of pertinent information about events of interest	4.4328	Highly Practiced
EC2. has orderly consolidation, analysis, and interpretation of data	4.3770	Highly Practiced
EC3. practice prompt dissemination of the results in a useful form	4.3934	Highly Practiced
EC4. initially concerned with infectious diseases	4.5344	Highly Practiced
EC5. currently includes a wider range of health data including – chronic diseases – environmental risk factors – health care practices – health behaviours	4.6230	Highly Practiced
General Weighted Mean	4.4721	Highly Practiced

Overall, effectiveness of care as a dimension of patient outcome got a general weighted mean of 4.4721 (strongly agree).

Tinker (2018) stated that to achieved the best outcomes or effectiveness of care, healthcare should make sure that the best practice care guidelines are current or properly administer.

According to the News and Resources: Hospital and Health Care Administration (2016), the effectiveness of care should be matched its appropriate care; it should refrain too much use and underuse of effective care. The two studies support the relevance of the effective of care, be given emphasis towards acceptable patient’s outcome.

Summary Table 16 (Patient Outcome)

Dimension	General Weighted Mean	Verbal Interpretation
Safety	4.4843	Highly Practiced
Effectiveness of Care	4.4721	Highly Practiced
Readmission	4.4492	Highly Practiced
Timeliness of Care	4.3553	Highly Practiced
Mortality	4.3551	Highly Practiced
General Weighted Mean	4.4232	Highly Practiced

Table 16 above amplifies the summary of the respondent's perception on the level of patient's outcome of the HCIs in Region IV-A. The dimension "Safety" was rated greatest by the respondents with a weighted mean of 4.4843 which is narratively described as "strongly agree". This is followed by "Effectiveness of Care" with a weighted mean of 4.4721 (strongly agree). Least rated dimension is "Mortality" with a weighted mean of 4.3551 (strongly agree).

The QMS components and its significant use of standards has an ultimate slam on patient outcomes. Appropriate customer input, monitoring of detail, and quality required by QMS should not be seen as similar requirements and in a very empirical structure to secure treatment of patients safely and efficiently. A QMS is not somewhat a substantial checklist; it is completed set of paces help to build quality care that supports patient care.

Ying Liua and Kay Coalson Avant (2014), patient outcomes do significantly impact on the cost of effective care, the quality of nursing care, and the formulation of healthcare policy making.

The two studies supports that the dimensions above are relevant to patient outcomes while the HCIs in Region IV-A delivers the set indicators efficiently given the highest importance to the safety of their patients. The data shows that the standards on patient's outcome are perceived to be highly practiced. In the gathered data from the interview of the Medical/Hospital Directors/Chiefs, patient's outcome is relevant to the HCIs operations. It is one of the measures of success by knowing patients are satisfied with the given care to them. They also looking forward to its further improvement to best serve the patients.

Part 4: Significant Difference on the Level of Practice of QMS

The following details the results on the test of hypotheses to establish if there is a significant difference on the perceived level of practice of quality management system when respondents are grouped by profile.

Ho: There is no significant difference on the perceived level of practice of quality management system when respondents are grouped by profile.

Ha: There is a significant difference on the perceived level of practice of quality management system when respondents are grouped by profile.

Profile	Dimension	p-value	Decision (Alpha = 0.05)	Conclusion
Sex	Customer Focus	.686	Accept Ho	There is no significant difference on the perceived level of practice management when respondents are grouped by profile.
	Leadership	.744	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Engagement of People	.405	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Process Approach	.696	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Improvement	.752	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Evidence-Based DM	.272	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Relationship management	.746	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.

Length of Service	Customer Focus	.314	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Leadership	.867	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Engagement of People	.548	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Process Approach	.661	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Improvement	.536	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Evidence-Based DM	.129	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Relationship management	.547	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
Province	Customer Focus	.011	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Leadership	.053	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Engagement of People	.061	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Process Approach	.025	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Improvement	.118	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Evidence-Based DM	.332	Accept Ho	There is no significant difference on the perceived level of quality management when respondents are grouped by profile.
	Relationship management	.018	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
Employment Status	Customer Focus	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Leadership	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Engagement of People	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Process Approach	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Improvement	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Evidence-Based DM	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Relationship management	.001	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
ISO Accreditation	Customer Focus	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Leadership	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Engagement of People	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Process Approach	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Improvement	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Evidence-Based DM	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.
	Relationship management	.000	Reject Ho	There is a significant difference on the perceived level of quality management when respondents are grouped by profile.

The Analysis of Variance (ANOVA) was employed to institute if there are significant differences on the level of practice of quality management system when respondents are grouped by profile. The highlighted variables on the table were implicated to have significant differences on the responses.

For the sex and length of service groupings, it was revealed that there are no significant differences on the responses across all dimensions of quality management. This may imply that the indicators measuring the major variables are perceived similarly by respondents regardless of sex. For the province grouping, it was

revealed that there are significant differences on the dimensions of customer focus, process approach, and relationship management since the computed p-value are all less than the level of significance ($\alpha = 0.05$); which would mean rejection of the null hypothesis in favor of the alternative hypothesis.

ISO 9001 Standard was originated on the seven QMS principles describing an approach to lay out guidance in formulating substantial value for customers. These principles encourage reorganization of process and focused on goal of organizations. The same principles are continuously studied and developed by international experts of ISO/TC 176; the technical committee of ISO are responsible for ISO 9001. Its scope is the standardization of quality management. It is also responsible as advisor to all ISO technical committees to ensure integrity for quality system standards and the compliance to quality management system's ISO sector policy. (ISO 2016d.)

Therefore, the seen differences as to province need to be addressed. As QMS has 7 principles that are needed to be performed, it will be a great concern if the healthcare institutions are not the same in practices of such mentioned areas because all principles of QMS go along with each other. For the employment status grouping, it was revealed that there are significant differences on all the dimensions of quality management since the computed p-value are all less than the level of significance ($\alpha = 0.05$); which would mean rejection of the null hypothesis in favor of the alternative hypothesis.

QMS are affected as to employment status. It means that the HCP/Ws practices are affected by their employment with the HCIs. This could be a great problem on the part of the management because in QMS, there should be a set standard in all processes. Since employment status and ISO certification affect the commonalities of perception of respondents on all dimensions of QMS. It implies that the HCP/Ws have difference in the practice of QMS depending on these two (2) indicators of profile.

There is varying perception on quality management system depending on the respondent's profile specifically as to province (customer focus, process approach relationship management) while the same perception on the other dimensions (leadership, engagement of people, improvement and evidence-based decision making). Standard ISO 9001 originated from the seven quality management principles, that outline an approach to give guidance in creating sustainable value for organization's customers. The principles facilitate reorganization of processes and focus on objectives of organizations.

Therefore, the seen differences of perception on the level of practice of QMS in some dimensions of the Quality Management System of the Healthcare Institutions in Region IV-A need to be addressed.

Part 5: Significant Difference on Patient Outcome

The following details if there are significant differences on the perceived level of patient outcome when respondents are grouped by profile.

Ho: There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile.

Ha: There is a significant difference on the perceived level of patient outcome when respondents are grouped by profile.

Profile	Dimension	p-value	Decision (Alpha = 0.05)	Conclusion
Sex	Mortality	.791	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Readmission	.127	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Safety	.653	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Timeliness of Care	.658	Accept Ho	There is a significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Effectiveness of Care	.432	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
Length of Services	Mortality	.871	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile

	Readmission	.788	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Safety	.829	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Timeliness of Care	.305	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Effectiveness of Care	.646	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
Province	Mortality	.370	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Readmission	.227	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Safety	.078	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Timeliness of Care	.658	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Effectiveness of Care	.108	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
Employment Status	Mortality	.000	Reject Ho	There is a significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Readmission	.000	Reject Ho	There is a significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Safety	.000	Reject Ho	There is a significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Timeliness of Care	.000	Reject Ho	There is a significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Effectiveness of Care	.000	Reject Ho	There is a significant difference on the perceived level of patient outcome when respondents are grouped by profile
ISO Accreditation	Mortality	.321	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Readmission	.248	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Safety	.018	Reject Ho	There is a significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Timeliness of Care	.718	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile
	Effectiveness of Care	.088	Accept Ho	There is no significant difference on the perceived level of patient outcome when respondents are grouped by profile

The analysis of variance (ANOVA) was employed to establish if there are significant differences on the responses when respondents are grouped by profile. The highlighted variables on the table were implicated to have significant differences on the responses. For the sex, length of service, and province groupings, it was revealed that there are no significant differences on the responses across all dimensions of patient outcome; which may imply that the indicators under the major variables are perceived similarly by respondents regardless of sex except for the timeliness of care.

According to Chu and Harder (2020), The National Academy of Medicine defines timely treatment as reducing waiting and sometimes detrimental delays for both people who receive and those who provide care.

The seen differences on the timeliness of care as to sex needs to be addressed as this will be continued to practice, the delays of care is alarming and may cause more and/or another complications to patients. For the employment status grouping, there are significant differences on all the dimensions of patient outcome since the computed p-value are all less than the level of significance ($\alpha = 0.05$); which would mean rejection of the null hypothesis in favor of the alternative hypothesis.

Employment and care are inextricably linked. Security of tenure can induce employee's morale and will lead to dedication at work. In the case of HCIs in Region IV A, the seen differences in employment status can affect the delivery of quality care among patients As the perception of patient outcome of respondents varies when they were grouped according to employment status.

Ying Liua and Kay Coalson Avant (2014), patient outcomes do significant impact on the quality of nursing care, the cost of effective care and healthcare policy making formulation. For the ISO certification status of the HCIs, it was revealed that there is no significant difference and not affective on the given measures on patient outcome, except for the safety of care. It implies that HCP/Ws are not fully practicing

safety protocols to achieve the favorable patient outcome. With the seen differences on the perception on patient outcome of the respondents, there is a need to standardized the quality of care among the HCIs in Region IV-A. Moreover, it be inferred that, length of service and province do not affect the perception of respondents on patient outcome.

Part 6: Significant Relationship Between the Level of Practice of QMS and Patient Outcome

The following details the significant relationship between level of practice of quality management and patient outcome.

Ho: There is no significant relationship between the level of practice of quality management system and patient outcome.

Ha: There is a significant relationship between the level of practice of quality management system and patient outcome.

In order to establish if there are significant relationships between variables, and to further investigate the level of practice of quality management system on patient outcome, the multiple regression analysis was performed (i.e., particularly using structural equation modelling or SEM technique).

Dependent Variables	Independent Variable	β	p-value	Decision (Alpha = 0.05)	Conclusion
Patient Outcome	Customer Focus	.063	.255	Accept Ho	There is no significant relationship between Customer Focus and patient outcome.
	Leadership	.161	.008	Reject Ho	There is a significant relationship between Leadership and patient outcome.
	Engagement of People	.154	.010	Reject Ho	There is no significant relationship between Engagement of People and patient outcome.
	Process Approach	.201	.002	Reject Ho	There is no significant relationship between Process Approach and patient outcome.
	Improvement	-.007	.915	Accept Ho	There is no significant relationship between Improvement and patient outcome.
	Evidence-Based DM	.130	.016	Reject Ho	There is no significant relationship between Evidence-Based DM and patient outcome.
	Relationship Management	.203	.001	Reject Ho	There is no significant relationship between Relationship Management and patient outcome.

The SEM revealed that all dimensions of quality management impact patient outcome significantly, except for the dimension of “improvement” since its computed p-value is more than the level of significance (alpha = 0.05). A computed p-value less than the level of significance, would mean that the impact of the independent variable on the dependent variable is significant. Hence, leadership engagement of people, process approach, evidence-based DM, and relationship management all impacts significantly patient outcome.

Scrutinizing further the result, the “relationship management” has the greatest impact on patient outcome ($\beta = .203$; p-value = .001). This is followed by “process approach” ($\beta = .201$; p-value = .002). Therefore, it can be concluded that the level of practice of Quality Management System principles are highly relevant to achieve the sufficiency of Patient’s outcomes. Systems help people work in the most appropriate way by letting them know what actions they must take to ensure they produce goods and services of the required quality (Barnes, 2008). This is important because organizations are supposed to be accurate and dependable and provide the service they promise to provide (Zeithmal & Bitner, 2003). Quality management system in healthcare service can be measured in patients’ outcomes which is monitored by the hospital to identify and diagnose the impeding constraints in healthcare service as part of DOH licensing a hospital.

With the highly practice of QMS and patient outcome in region IV A, healthcare can of reference and patients are guaranteed to be treated as they are needed to be. Mortality and readmissions can be lessened and quality of care is expected among the HCIs.

Part 7: Conformity Data on the Level of Practice of QMS, Patient Outcome and their Relationship with one another

The following details introduces the data gathered through interviews conducted with the Medical/Hospital Directors/Chief who accepted the request of the researcher.

RESPONDENTS	QUESTION 1	QUESTION 2	QUESTION 3
A	<p>QMS and Patient Outcome are interconnected, thereby having significant relevance to each other.</p> <p>Quality Assurance has always been part of the process of improving patient outcomes. The promise of a QMS, is to ensure that existing practices are continuously developed and enhanced to make certain staff efficiency and maintain high performance of services, thereby improving outcomes.</p>	<p>YES, SAGHI has been certified with ISO 9001 (QMS) since 2016, and had significant impact in the improvement of overall hospital performance, thereby improving patient outcomes; as evidenced by decrease in healthcare-associated infections, zero patient safety issues and decreased mortality rate. Which in turn, improve patient satisfaction thus increasing the number of admissions per year by 20% (pre-pandemic)</p> <p>Evidences include Improved in Turn-around time for ancillary services (diagnostics), increased sales (diagnostics, supplies and pharmaceuticals) and increased patient satisfaction (medical and nursing services)</p>	<p>Improvement Costs and Repairs, Retention and Hiring of Manpower.</p> <p>At present, healthcare providers are experiencing significant problems in terms of revenue due to fallbacks with the Philippine Health Insurance Corporation.</p> <p>The increased turnaround of payments; quick disbursements which would increase hospital revenue and capital, would greatly improve hospital operations as this could enable the hospital to improve existing infrastructure, acquire technologically innovative equipment and increase staff hiring and compensation (which all have great impact on hospital performance)</p>
B	<p>One of the goals of quality management system should be the improvement of patient outcome. Reviewing and evaluating clinical management, procurement and use of supplies and medicines, facility and equipment readiness and availability of qualified and competent human resource should be able to identify gaps that contribute to unfavorable or unsatisfactory patient outcomes. Definitely, quality management system is reflective of patient outcome.</p>	<p>At the moment, QMS is not a deeply ingrained system for Quezon Medical Center. There is no hospital committee or organization that oversees Quality Management System and assessment of processes and patient outcome are not yet intertwined. The most prominent activity that may pass as a QMS function is the audit of medical cases. This is the only venue where patient outcome is discussed in relation to the many aspects of hospital operations such as operational systems or protocols, materials management, and human resource utilization and management.</p>	<p>The initial step is institutionalizing Quality Management in the hospital with the creation of a hospital body to design a system of evaluating all aspects of hospital operations. Because LGU hospitals are almost always challenged financially, prioritizing direct patient care components over other concerns, Quality management is not usually given the attention or priority except the activities that was mentioned previously. I think that top level managers must adopt a mindset of giving importance to institutionalize Quality Management despite the financial difficulties. This should be regarded as an investment that should result to better patient outcome, efficient use of limited resources, and may even result to positive financial health and self-sufficiency.</p>
C	<p>The Quality Management System in the Batangas Medical Center is being implemented already. So, this is done by our led by our ISO office together with our PGS performance governance system in coordination with human resource and all the divisions and all the unit's hospital and a very important component of our IQA and this is being monitored client satisfaction survey. So, we've maintained it at more than 95 some others are 998 and from there we see the different responses for our clients and where there are gaps, and where we could do interventions to improve the quality of our services for our clients. In fact, on our clients, we see some gaps or low satisfaction and we take this into account and discuss the possible interventions that we can do for them.</p>	<p>Yes, of course, and this is parallel many years but this is really the perception of government hospitals, to me is palakasan and matagal, maserbisyo, now we've improved it already as shown by our client customer satisfaction survey and we are monitoring these indicators</p>	<p>Our ISO covers all the services in the hospital so, it's hospital-wide. And we've been ISO for eight years ago. And now the ISO accreditation is risk-based. That's the latest and we continue to be accredited this is a continuous process and we stop our accreditation last year. So, we are committed to having a yearly accreditation be to us by a third party who does all the audits and even internally we have the internal control unit and our internal auditors doing quarterly to semiannual all these audits as has been agreed upon. As management reviewers we're we discuss some findings, not only the negative or those that need improvement but even the best practices, or the positive observation so that other areas can copy or emulate those practices all for the good of the efficiency and effectiveness of our services in Batangas.</p>

D	Yes, I believe QMS and patient outcomes in the hospital setting are relevant to each other. They are directly related in the sense that correctly and effectively implementing QMS policies and procedures will most likely result in excellent clinical outcomes. The way I see it, QMS somehow puts objectivity and structure in the complex process that govern the provision of healthcare to patients in a hospital.	While I maintain that QMS is important in assuring good patient outcomes, the QMS department in our institution functions more of monitoring for compliances in our hospital licenses and permits. While that is not a trivial matter, the potential benefits of utilizing QMS methods are not fully realized and translated into ensuring good patient outcomes.	Everyone in the organization, from the top level down to the rank and file, should be considered important stakeholders and are responsible and accountable for doing everything they can to achieve their institutional goals. Top management should define the QMS strategies and become role models for the rest of the members to emulate. By doing this they will be able to create a culture of patient safety and quality healthcare delivery.
E	From my standpoint, quality management system and patient outcome goes hand in hand in all situations as it is the goal of any healthcare system – to provide ideal care from a qualified provider in an appropriate setting for a particular patient. In recent years there has been six domains identified that help to achieve a high degree of quality: health care must be safe, effective, patient-centered, timely, efficient and equitable. By measuring patient outcomes through quality management, issues within the system are identified and processes can hereby be developed or altered to improve the overall quality of care	From my standpoint, quality management system and patient outcome goes hand in hand in all situations as it is the goal of any healthcare system – to provide ideal care from a qualified provider in an appropriate setting for a particular patient. In recent years there has been six domains identified that help to achieve a high degree of quality: health care must be safe, effective, patient-centered, timely, efficient and equitable. By measuring patient outcomes through quality management, issues within the system are identified and processes can hereby be developed or altered to improve the overall quality of care	As I see it, measures of quality and safety can track the progress of quality improvement initiatives using benchmarks. Benchmarking in healthcare is defined as the continual and collaborative discipline of measuring and comparing the results of key work processes with those of best performers in evaluating organizational performance. Comparative data gathered through these benchmarks can continuously help the institution to improve and understand the fast-changing needs of quality healthcare and ensure positive patient outcomes

On the data gathered, it showed that a hundred percent of the respondents have clear insights of the QMS and that the healthcare institutions where they are affiliated to are practicing the QMS practice to have a favorable patient outcome. Likewise, they believe that QMS and patient outcome are relevant to one another.

Two (2) of the Healthcare institutions are ISO certified and three (3) are not. Despite the differences on certification status, hundred percent of the respondents have cited the importance of practicing QMS towards favorable patient outcome. ISO 9001:2015 set forth the only standard for certification, even though not mandatory. It identifies the criteria for a QMS and is relevant to any organization at all sizes of organization. (ISO 2016g.)

As patient outcome is the end-result of care the patients obtain from the hospital like maintaining the patient functioning status, safety, and satisfaction. (sciencedirect.com). The healthcare institutions are aware of the current QMS practices and all open for its improvement in gaining the intended patient outcome. They all have initiatives to standardized processes to be able to reach the favorable patient outcome.

The healthcare institutions are aware of the current QMS practices and all open for its improvement in gaining the intended patient outcome. They all have initiatives to standardized processes to be able to reach the favorable patient outcome.

The output of this study Quality Management System Approach for the Healthcare Institution in Region IV A. This outlined the QMS approach for patient outcome that is summarized in a form of an audit plan. This proposed QMS approach is highly relevant to the HCIs aiming to have ISO certification otherwise, can be of best benchmarking tool for those HCIs that are already ISO certified for a continuous re accreditation of the QMS practices across provinces in the Region.

Conclusions

The following conclusions were based on the conclusion gathered:

1. Based on the study conducted, it shows that the 43 healthcare institutions in Region IV-A has few level 3 or training hospitals despite the capacity to practice the quality management system and standards on patient outcome measures. As majority are implementing a hundred bed capacity, this indicates that the HCIs are equipped with the sufficient number of healthcare practitioners/workers.

Despite that the healthcare institutions have operating for several years, almost half of them are ISO certified.

2. Female workers are dominant in the 43 healthcare institutions in Region IV-A and majority are holds permanent position. This is a good indicators that women are given equal opportunity in the said work place and that healthcare workers are well-compensated for years. Since most of the healthcare institutions in Batangas are operating in Level 3 capacity, majority of healthcare practitioners/workers came from this province. Quality management system major variables are perceived similarly by respondents regardless of sex. Therefore, can be concluded that respondent's profile as to sex and length of service do not affect the perception on quality management system of respondents for having common perception in all aspects of QMS. There is varying perception on quality management system depending on the respondent's profile specifically as to province (customer focus, process approach relationship management) while the same perception on the other dimensions (leadership, engagement of people, improvement and evidence-based decision making). Therefore, the seen differences of perception the level of practice of Quality Management System of the Healthcare Institutions in Region IV-A need to be addressed. This can be inferred that there is difference on the level of practice of QMS depending on the employment status of the HCP/Ws and HCIs ISO certification status.
3. Perception of patient outcome of respondents varies when they were grouped according to employment status and the safety of care as to ISO status of HCIs can be inferred of not fully practicing the standards on patient outcome. With the seen differences on the perception on patient outcome of the respondents, there is a need to standardized the quality of care among the HCIs in Region IV-A. The output of this study Quality Management System Approach for the Healthcare Institution in Region IV A is presented on the next page. This outlined the QMS approach for patient outcome that is summarized in a form of an audit plan. This proposed QMS Approach is highly relevant to the HCIs aiming to have ISO certification otherwise, can be of best benchmarking tool for those HCIs that are already ISO certified for a continuous standardization of the QMS practices.

Recommendations

Based on the above mentioned findings the following recommendations are set forth:

1. The healthcare institutions in Region IV-A, as seen in their profile are capable of practicing the quality management system as set by the International Standard Organization (ISO). A certification for the same is hereby recommended to further standardized the practices of Level 2 and Level 3 hospitals. HCIs aiming to have ISO certification and can be of best benchmarking tool for those HCIs that are already ISO certified for a continuous standardization of the QMS practices across provinces.
2. The healthcare practitioners/workers in the healthcare institutions in Region IV-A are seen to be compensated across provinces and to equalize the delivery of quality management system, it is recommended to escalate the approved implementing bed capacity of all level 2 and 3 hospitals to give equal chances for the healthcare practitioners/workers in respective provinces.
3. The level of quality management system in region IV-A was seen to be differed among provinces. With the ISO accreditation, this differences can be standardized, unified and will lead to common output of care to patients. Proper coordination maybe considered with each province to standardized the practices on OMS.

4. There were variations on the significance of quality management system dimensions as to province and employment status and shown that healthcare practitioners/workers have different values at work and in QMS practices. Whereas to standardised the same, they should attend QMS trainings/seminars. This will eliminate the affectiveness of respondent's characteristics in performing what should be standardized.
5. Patient outcome has variations with respect to the employment status of the healthcare practitioners/workers. To deliver quality on patient outcome, it is recommended to upgrade the budget of healthcare institutions of Region IV-A to accommodate healthcare practitioners/workers in permanent status. By doing so, employee morale and dedication of work can be uplifted.
6. Quality management system plays a very relevant role to patient outcome. With the data gathered, it is recommended to continue the QMS practices of the healthcare institutions in Region IV-A that are currently affective to the success of patient outcome thus, standardization of practices lies on the ISO certification.
7. With the data gathered and presented, observation conducted and work experience in the healthcare institutions in Region IV-A, the researcher highly recommends the Quality Management System Approach for the Healthcare Institutions in Region IV-A to ISO 9001:2015 QMS Standard.
8. For the future researchers, it is recommended to consider the patients as respondents on similar studies. Likewise, assess the QMS practice of each healthcare institution individually and not as a whole.

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