

# Assessment of the quality of independent nursing practice in Indonesia based on total quality management indicators

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## Abstract

**Background:** The quality of management has become a problem and significant issue of the late decade in Indonesia's professional nursing practice. By implementing total quality management (TQM), the organization would identify a health organization system's performance to improve patient satisfaction and patient safety for independent nursing practice services.

**Objective:** This study aimed to assess the quality of independent nursing practice in Indonesia based on TQM indicators.

**Methods:** This study employed a sequential explanatory mixed methods design. Participants were 105 Chief Executive Officers (CEOs) of independent nursing practices who answered a TQM survey using The Malcolm Baldrige Criteria for Performance Excellence (MBCfPE). The quantitative responses were analyzed using SmartPLS version 3.0. For qualitative data, selected six participants from total respondents were interviewed to explore the participants' understanding of TQM. All the responses were transcribed and uploaded using NVIVO ver. 11 for thematic analysis.

**Results:** Leadership positively influenced strategic planning, customer attention, assessment analysis, and information management (focusing on personnel process management and efficiency) ( $p < 0.001$ ). In addition, process management indicated a positive influence on performance results ( $p < 0.001$ ). Interview transcriptions concentrated on the following themes that emerged, such as quality focus, service focus, human resource focus, performance result, leadership, service system design, strategic planning, and information system.

**Conclusion:** TQM with the adaptation of MBCfPE criteria improves the organization's performance and serves as a strategic component in assessing and implementing sustainability change. The findings of this study can be used by CEOs of independent nursing practices for continuous improvement. In addition, the results serve as a basis for the ministry of health for accreditation to ensure the high quality of health care services.

## Keywords

total quality management; nursing services; personnel management; independent nursing practice; Indonesia

There is a growing awareness that quality management is an essential component at all organization's levels (Lauring & Selmer, 2012). Quality management as a method is defined as a series of coordinated activities and functions to direct and control the organization to continue improving its effectiveness and efficiency (Kaluvarachchi, 2010). To

introduce a quality management system based on its strategy, goals, structure, size, products, and services, organizations must make rational decisions (Manghani, 2011). This also extends to the health industry.

Total Quality Management (TQM) is, in general, a management philosophy used by companies that aim to

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improve their business market productivity and competitiveness (Lauring & Selmer, 2012). TQM quality indicators include the engagement and participation of senior management, empowerment, and corporate culture (Kaluvarachchi, 2010). In a seminal commentary by Andreoli (1992), she opined that TQM unifies and integrates the innovative system of managerial and organizational activities toward a culture of excellence and quality services.

Moreover, the concept of quality is not a relatively new concept to nursing. Undeniably, even before the professionalization era of nursing, quality has been coined as a pillar contributing to patient and organizational outcomes. A recent study by Wang et al. (2019) explored the nexus among total quality management, work values, employee satisfaction, and patient-safety-culture attitudes. Their findings revealed that TQM implementation benefitted many nurses in various ways and improved patient-safety culture. For this reason, it is imperative to continuously integrate the core concepts of TQM not only in the conventional nursing practice but also in the independent nursing practice.

Nursing as a profession and discipline in Indonesia is promising. For this reason, the Indonesian National Nurses Association mentioned that the ever-changing landscape of the healthcare system demands to heighten every nurse's level of competencies, expertise, and field of specialization. This was highlighted by Widasari Sri Gitarja as a prime mover of the independent nursing clinic "Wocare Center". However, due to the lack of understanding about the legal components and other areas of independent nursing practice, many Indonesian nurses are reluctant to immerse themselves in a highly structured and autonomous approach (Wocare, 2020). Moreover, the independent nursing practice requires a constant scaffolding of the process of quality integration into its nomenclature.

### Independent Nursing Practice Context in Indonesia

The independent nursing role is described as any part of nursing practice for which the nurse is solely responsible, working independently and without guidance from other disciplines (Musker, 2011). Because of its restructuring, focus on preventive health care, and public engagement in holistic modalities, new opportunities for nurses to pursue independent nursing practice is developing due to the overarching healthcare system's needs and demands. In some areas, because of its consolidation, emphasis on preventive health care, and public interest in holistic modalities. Independent nursing practice is a tiny but vital component of the healthcare system that gives the public more options in terms of healthcare access (Porter & Lee, 2021). According to Wocare (2020), there is a need to strengthen the independent nursing practice because it offers a fortress of opportunities for nurses to exercise accountability, integrity, and autonomy. This advocacy by Wocare as an organization is enshrined in the Indonesian Nursing Law (Law No. 38 of 2014) that also encourages organizing a systematic approach to patient care grounded

on evidence-based interventions along with interprofessional collaborative practice (Government of Indonesia, 2014).

Types of services provided at the independent nursing practice in Indonesia include wound care, stoma care, continence care, maternity care, mental care, or complementary care. For instance, the practice of wound care has proliferated in Indonesia that offers independent practice to patients who need wound care management at the confines of the patients' homes. In the current practice, almost 600 nurses have been trained and increased their skills in various nursing procedures (Wocare, 2020). However, there is a dearth of evidence that explores that quality integration into patient care, albeit implied within nursing practice. For this reason, this study was conducted to evaluate the quality of independent nursing practice in Indonesia based on the TQM framework. This study hopes to offer baseline information about the salient outcomes that TQM delivers that further improves patient outcomes.

### Total Quality Management Indicators/Principles

Total quality management (TQM) is a formal framework for including the entire enterprise in preparing and implementing a performance improvement process to achieve and fulfill consumer expectations (Sadikoglu & Olcay, 2014). To determine the current state of TQM implementation, each organization must review and assess itself (self-evaluation and self-assessment) to provide feedback in the form of new strategies for future TQM implementation.

TQM within the purview of the healthcare environment defined as the satisfaction of patients, doctors, nurses, and suppliers, and other interested groups, achieved by implementing effective planning, programs, policies, and strategies, and human and all other assets (i.e., soft issues) efficiently and continually within a hospital context (Talib et al., 2011). In Independent nursing practice, TQM has become a well-accepted term. TQM preserves and increases efficiency at reduced rates, but it necessitates a cultural shift for the institution and nursing unit to accept it (Mun et al., 2013). Several studies emerged in the corpus of literature that integrates TQM in nursing practice in Indonesia, especially in a hospital setting (Manurung et al., 2017; Sintari & Novitasari, 2020), but due to the paucity of evidence in Indonesia's independent nursing practice; this study came to fruition.

Because this quality management system strives to improve the company's entire performance, the effectiveness of TQM adoption can be determined through organizational performance measurement (Berglund et al., 1999). One of the organizational performance measuring methodologies in this research is Malcolm Baldrige for Performance Excellence (MBCfPE). The Malcolm Baldrige Criteria for Performance Excellence (MBCfPE) is a quality management measuring system based on a self-assessment approach to an organization's performance (National Institute of Standard and Technology (NIST), 2020). Approximately 100 organizations throughout the

world have employed this strategy. Leadership, strategic planning, customer focus, measurement, information and knowledge analysis and management, workforce focus, operations focus, and results are the seven criteria used by MBCfPE to assess the state of an organization (National Institute of Standard and Technology (NIST), 2020).

## Methods

### Study Design

A sequential explanatory design was used in this study: a two-pronged approach in data collecting and data analysis. The data are collected over a period of time in two consecutive phases. Thus, we first collected and analyzed the quantitative data. Qualitative data were collected in the second phase of the study and related to the quantitative phase outcomes (Creswell, 2012). In this study, we collected the data about the TQM implementation followed by an in-depth interview with key informants to elicit the common issues and challenges in the identified TQM implementation and its process.

### Participants and Study Setting

The participants were selected using a purposive sampling from DKI Jakarta, Bogor City, Bogor Regency, Depok City, Tangerang, Bekasi City, and Bekasi Regency (Jabodetabek). A total of 105 respondents met the inclusion criteria: Chief Executive Officer (CEO) of the independent clinic, engaged in independent nursing practice, ages between 18 and 65, with at least one year experience in the current position, and proficient in reading and speaking Bahasa and English. After the quantitative data had been collected, we selected informants based on similar inclusion criteria. However, due to the proximity, one key informant was identified as a representative of each city or district. A total of six informants agreed to be interviewed.

### Data Collection

#### *Quantitative strand*

During the quantitative phase of data collection, the eligible participants based on the inclusion criteria were provided with self-administered questionnaires through email correspondence detailing the voluntary participation. Two sets of questionnaires were attached as documents in the emails. Part I described the profile characteristics of the participants, including age, gender, the highest level of education, duration of nursing practice, type of case, monthly income, and a number of monthly visits for two months. Part II asked the participants to rate their agreement using a 4-point Likert scale (1 = Strongly Disagree; 2 = Disagree; 3 = Agree; 4 = Strongly Agree). The primary instrument used was adapted from The Malcolm Baldrige Health Care Criteria for Quality Service, consisting of 67 items. The questionnaire was grouped into process criteria (criteria 1-6) and outcome criteria (criteria 7). The scoring system is based on the MECfPE score criteria. The MBCfPE criteria provide a systemic approach to achieving operational excellence and overcoming

healthcare quality-measurement challenges (National Institute of Standard and Technology (NIST), 2020). The questionnaire was translated into the Indonesian language. After the quantitative data were collected, the individual responses from the Google forms were transported and cleaned using Microsoft Excel before data were uploaded to the computer-assisted software.

#### *Qualitative strand*

The qualitative phase of data collection was conducted a week after the completion of Phase I. During Phase II, the key informants were invited through their emails detailing the study's purposes. After they have agreed on their voluntary participation, another invitation was sent to provide the information about the interview process. An in-depth interview was conducted via Zoom because of the limitation of physical restriction at the COVID-19 pandemic. We requested to record the interview and agreed by the key informants. Afterward, the audio-video recorded interview was transcribed in a word file document before those narratives were uploaded in NVIVO Plus ver. 11. This qualitative software facilitated the data analysis. The in-depth interview was to explore various issues about the implementation of TQM within nursing independent nursing practice.

### Data Analysis

#### *Quantitative strand*

Descriptive statistics were employed for the demographic information with Microsoft Excel. The quantitative responses were analyzed using SmartPLS version 3.0. The results of factor analysis, multiple hierarchical regression, and partial least square structural equation modeling with statistically significant was set value T-statistics <1.65 (Hair et al., 2019).

#### *Qualitative strand*

To guide the data analysis of the comprehensive interview, qualitative content analysis was used. First, the transcripts were read. The words and sentences were categorized as sample units, which were then simplified and labeled with a code and organized into their respective groups, containing information relevant to the study questions. The NVivo ver 11 was used during the process of schematization. Disagreements among the authors in the coded themes were addressed through constant member checks and succeeding meetings to draw a consensus.

### Ethical Consideration

This research was approved by The Indonesian Wound Care Clinician Association (0321/SK/InWCCA/ X/2020). The data were permanently deleted after completing data collection. Before data collection, each respondent has signed informed consent. Also, the respondents were informed about their voluntary participation, may partially or wholly withdraw during the study, their identity was anonymous, and no personal identification information was retrieved to ensure confidentiality.

## Results

### Quantitative Results

Table 1 shows that 34% of the respondent from Jakarta. The majority were males (58.6%) and completed bachelor's

degree (54%). Most types of service were wound care (57.5%), with diabetic ulcer care (78%). Most of them have been working for 1 to 5 years (55.2%). In addition, the majority of the participants had a total income of less than 10 million (51.7%) and less than ten visits.

**Table 1** Profile characteristics (N = 105)

Profile characteristics	%
<b>Area of practice</b>	
Jakarta	34
Tangerang	13
Depok	17.2
Bogor	19
Bekasi	16.8
<b>Sex</b>	
Male	58.6
Female	41.4
<b>Education level</b>	
Diploma	16.1
Bachelor	54
Magister	24
Specialist	5.7
<b>Type of services</b>	
Wound care	57.5
Wound, ostomy, and continence care	32.3
Nurse specialist	2.2
General nurse	8.1
<b>Type of cases</b>	
Diabetic ulcer	78.2
Cancer wound	7
Pressure injury	7.8
Acute wound	7
<b>Experience</b>	
<1 year	11.5%
1-5 years	55.2%
6-10 years	24.1%
>10 years	9.2%
<b>Total income monthly (Rupiah)</b>	
<10 million	51.7%
10 – 50 million	36.9%
51 – 100 million	5.7%
>100 million	5.7%
<b>Visited per month</b>	
<10 visit	52.9%
51 – 100	34.5%
101 – 200	5.7%
>200	6.9%

Table 2 shows the mean and factor loadings for each measurement object's seven factors and each factor's ratings for the Average Variance Extract (AVE). The mean value of customer focus, process management, and performance outcomes were all included in the 'always' category, with average scores ranged between 3.26-4.00. This demonstrates that, with the correct procedure, independent nursing quality was high. In the frequent category, the variables of leadership, strategic planning, measurement analysis, knowledge management, and staff focus were included, with the mean value from 2.51 to 3.25.

AVE value for each variable met the validity criteria, which the variables of leadership, strategic planning, customer focus, measurement of knowledge management analysis, staff focus, process management, and performance results with each value AVE were 0.66, 0.70, 0.61, 0.70, 0.78, 0.63 and 0.60, higher than the limit value 0.5 (good convergent validity value) (Hair et al., 2019). Furthermore, the results revealed a high correlation coefficient through the structural model through the coefficient of determination ( $R^2$ ) and the multicollinearity test (see Figure 1).

**Table 2** Validity convergent actual: Mean, factor loading & AVE

Code	Items	Mean	Factor loading	AVE	Results
<b>LS</b>	<b>Leadership</b>	<b>3.22</b>		<b>0.66</b>	<b>Agree</b>
LS 1	Create an independent nursing practice vision, mission, and organizational principles	3.28	0.79		
LS 2	Disseminate the vision, mission, and organizational principles of the nursing independent nursing practice organization	3.13	0.80		
LS 5	Encourage workers to continue to improve and improve productivity	3.43	0.84		
LS 7	Supervise the execution of the responsibilities of subordinates regularly	3.14	0.89		
LS 8	Analyze the efficiency of subordinates	3.18	0.89		
LS 9	Use assessment results as a basis for the provision of incentives and punishments	3.06	0.78		
LS 10	Implement an internal and external evaluation (audit) scheme for results	2.90	0.71		
LS 11	Encourage workers to record any action	3.31	0.85		
LS 12	Encourage staff to perform highly ethical services	3.52	0.76		
LS 13	Render care attention to the influence of nursing independent nursing practice on the community around the independent nursing practice.	3.15	0.78		
LS 14	Facilitate efforts to select priority maintenance/improvement services	3.30	0.78		
<b>SP</b>	<b>Strategic Planning</b>	<b>3.18</b>		<b>0.70</b>	<b>Agree</b>
SP 1	Define the independent nursing practice organization's goals and objectives	3.16	0.86		
SP 2	Develop the independent nursing practice organization's strategic priorities based on patient/customer needs	3.29	0.86		
SP 3	Analyze independent nursing practice's internal and external conditions in compiling the independent nursing practice organization's strategic planning	3.09	0.87		
SP 4	Formulate short and long-term programs to meet policy priorities for independent nursing practice	3.11	0.80		
SP 5	Determine superior service programs that are vital independent nursing practice activities	3.28	0.87		
SP 6	Disseminate job schedules to all staff of independent nursing practice workgroups/ facilities	3.19	0.78		
SP 7	Determine the tools required to facilitate the efficient execution of work plans	3.18	0.83		
SP 8	Determine the method of tracking and reviewing the implementation of work plans	3.2	0.83		
<b>CF</b>	<b>Customer Focus</b>	<b>3.45</b>		<b>0.61</b>	<b>Strongly Agree</b>
CF 2	Determine patients' needs, aspirations, and preferences to ensure the quality of independent nursing practice programs for nursing	3.51	0.82		
CF 3	Use social media to listen to patient/client preferences and feedback about nursing independent nursing practice facilities	3.16	0.76		
CF 4	Measure the patient/service satisfaction standard	3.27	0.67		
CF 5	Informed to each unit of patient problems to be able to determine the root cause	3.43	0.87		
CF 6	Explain the introduction of quality improvement in independent nursing practice	3.69	0.77		
CF 7	Provide timely and specific service to the patient/client status requirements	3.63	0.79		
<b>MKMA</b>	<b>Measurement of Knowledge Management Analysis</b>	<b>2.98</b>		<b>0.70</b>	<b>Agree</b>
MKMA 1	Measure the performance in each working unit	3.01	0.85		
MKMA 2	Use results of the performance measurement to assist decision-making in improving service quality	3.01	0.89		
MKMA 3	Integrate information management system of data and information on private nursing practice services	2.84	0.83		
MKMA 4	Update service information	3.08	0.86		
MKMA 5	Ensure employees or patients/customers can instantly and comfortably obtain data and information from independent nursing practice	3.01	0.83		
MKMA 6	Combine data and information from private nursing practice with service efficiency metrics	2.95	0.88		

Table 2 (Cont.)

SF	Staff Focus	3.23	0.78	Strongly Agree
SF 1	Develop staff capacity and skills to meet organizational performance objectives	3.18	0.87	
SF 2	Motivate staff to create creativity in the provision of services	3.15	0.86	
SF 3	Create a secure work environment for workers	3.39	0.89	
SF 6	Receive bonuses for high employee success and incentives	3.17	0.89	
SF 7	Ensure each worker actively explores opportunities to improve their ability to deliver services	3.16	0.89	
SF 8	Ensure each employee is granted the authority to complete tasks according to their position and capacity	3.34	0.88	
PM	Process Management	3.41	0.63	Strongly Agree
PM 3	Design the operation phase in private nursing practice according to the patient/customer interests	3.48	0.76	
PM 4	Supervise carrying out of operations/programs	3.19	0.79	
PM 6	Design operation protocols to benefit from the independent nursing practice	3.32	0.81	
PM 9	Renew the rhythm of the service process to make it more reliable and productive	3.37	0.84	
PM 10	Ensure professionals and specialists in their fields carry out each service	3.54	0.80	
PM 11	Allow attempts to continually enhance or raise the level of care to patients/consumers	3.54	0.77	
PM	Performance Result	3.48	0.60	Strongly Agree
PR 1	Ensure each care provided is based on the patient/customer's needs and conditions.	3.64	0.81	
PR 2	Ensure officers carry out each service according to the education/expertise possessed	3.60	0.85	
PR 3	Ensure operations in compliance with the standard operating procedures	3.61	0.78	
PR 5	Handle service period (waiting for time or duration of treatment) for patients/clients effectively	3.50	0.85	
PR 7	Enhance employee satisfaction in the execution of their jobs	3.38	0.77	
PR 8	Reduce delays or cancellations of patient/client services	3.18	0.54	

Note: LS: Leadership, SP: Strategic Planning, CF: Customer Focus, MKMA: Measurement of Knowledge Management Analysis, SF: Staff Focus, PM: Process Management, PR: Performance Result

Table 3 shows the significant influences among the MBCfPE constructs. It can be gleaned in the table that leadership positively influences strategic planning, customer attention, assessment analysis, and information

management (focusing on personnel process management and efficiency), while process management indicates a positive influence on performance results

Table 3 Path coefficients bootstrapping (Mean, SD, T-Values)

Hypothesis	Path Coefficients	Original Sample (O)	Sample Mean (M)	SD	T Statistics (O/SD)	P-values
H1a	LS -> SP (X1a)	0.81	0.82	0.04	19.01	<0.001*
H1b	LS -> CF (X1b)	0.59	0.60	0.07	8.15	<0.001*
H1c	LS -> MKMA (X1c)	0.70	0.70	0.06	12.27	<0.001*
H1d	LS -> SF (X1d)	0.81	0.80	0.04	18.11	<0.001*
H1e	LS -> PM (X1e)	0.57	0.58	0.09	6.01	<0.001*
H1f	LS -> PR (X1f)	0.28	0.27	0.166	1.7	0.085
H2	SP -> PR	-0.23	-0.24	0.15	1.48	0.139
H3	CF -> PR	0.11	0.11	0.13	0.85	0.393
H4	MKMA -> PR	-0.004	-0.017	0.13	0.03	0.976
H5	SF -> PR	0.10	0.11	0.14	0.70	0.480
H6	PM -> PR	0.57	0.60	0.11	4.89	<0.001*

Note: LS: Leadership, SP: Strategic Planning, CF: Customer Focus, MKMA: Measurement of Knowledge Management Analysis, SF: Staff Focus, PM: Process Management, PR: Performance Result



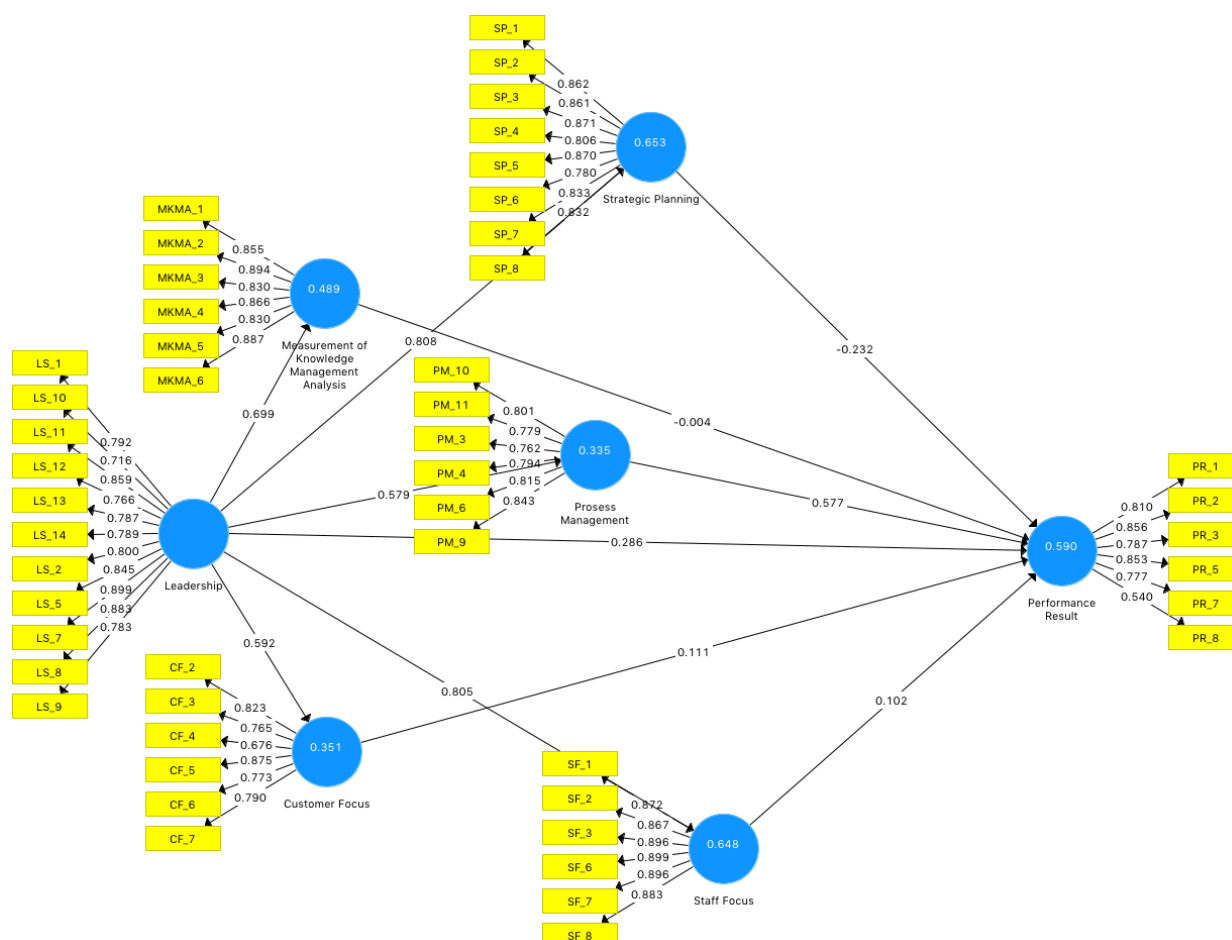


Figure 1 Path model algorithm

### Qualitative Results

Based on the analysis, eight themes emerged from the key informants' narratives:

#### Theme 1: Quality focus

- It is more about the performance we are doing [...] the family really wants to know about the wound treatment. With this, the patient and the family members would have more faith in how the treatment is done. If we certainly determine all [about the treatment], we often rely on the patient's view. The standard of service [or care] must be quality (Informant ID-6)

#### Theme 2: Service focus

- There is also a decline among patients who visit the clinic [perhaps] due to the pandemic. More often, [in fact], most patients, if not all, will ask for home care management. Through this approach, nurses can [eventually] meet the patients' needs and expectations (Informant ID-5)
- [Now], the patient would always expect the service providers [...] to interact with them. This is what we always do to build good and dynamic, closely knitted

interactions while we remain focused based on patient's needs, demands, and expectations (Informant ID-4)

#### Theme 3: Human resource focus

- In our case, we focus on the people [our employees] because we believe in their competence and expertise levels. We plan to establish a professional clinician network for case evaluations. We also have in mind to engage in local conferences (Informant ID-1)
- I make sure that every employee is equipped with competence through training and development (Informant ID-3)

#### Theme 4: Performance result

- By conducting briefings with supervisors and colleagues, we maximize efficiency. Indeed, because of their contact with patients and families, the most important factor in improving care is to enhance effective communication either face-to-face or virtually (Informant ID-5)
- Why do I give the origin of the name Blessing Care? Because I want to focus on nursing, this is also one way

*to share the blessing to others, knowing that what I have for my employees: they are all well-performing (Informant ID-6)*

#### **Theme 5: Leadership**

- *It is our shared aim to strengthen independent practice across the country. However, this vision requires leadership coupled with vision and purpose (Informant ID-2)*
- *[Well]... I think the highest decision is mine [...], but I do not make my own choices. I consult others still to come up with the best decisions for the team and with the team (Informant ID-3)*

#### **Theme 6: Service system design**

- *I think system design within the service you provide really matters [...]. It is essential for the standard of service to sustain or improve the quality that already exists [or] may need further improvements (Informant ID-6)*

#### **Theme 7: Strategic planning**

- *The strategies that have been compiled do not comply with policies, so we need to intensify our approaches to planning (Informant ID-1)*

#### **Theme 8: Information system**

- *[...] but now, maybe in a few months, we can integrate an information system that will be patient-focused (Informant ID-1)*
- *The current documentation needs a revisit or even a new platform such as WhatsApp, where most patients are connected. This makes the transmission or retrieval of information becomes easier (Informant ID-4)*

## **Discussion**

### **Summary of the Findings**

The present study showed that leadership positively influences the following domains: strategic planning, customer satisfaction, assessment analysis, and information management, focusing on personnel process management and efficiency. Leadership remains a precursor to the effective adoption of TQM in many healthcare organizations. Nursing leaders continue to uphold the highest quality standards of patient care to ensure that the service delivery and provision of care are fully achieved by every nursing unit member and meet their expectations (Balasubramanian, 2016). Nursing leaders should continue to serve as role models for newly admitted nurses to the healthcare organization to ensure they develop a sense of belonging and organizational citizenship. These greenhorn nurses are considered a path of continuity of similar leadership exemplified by the nursing leaders they considered role models.

On the other hand, leadership is also recognized as a bridge that connects for effective strategic planning that strengthens the sense of direction what the nursing unit

wants to achieve. Nursing leaders must develop their functional and adaptive capacity to the ever-changing status and demands of the health systems. In this regard, the nursing unit, along with its practice, can be more responsive to future institutional needs and patient demands. Many hospitals worldwide place a high value on customer or patient satisfaction because this becomes an indicator of quality service delivery and tangible patient and organizational outcomes (Manurung et al., 2017). It builds and heightens patient loyalty and patient intimacy, which trust and confidence in service delivery are ensured.

Moreover, it should also be heightened to provide a continuous mechanism that evaluates the patient care and provision of care by the nurses, whether in healthcare settings or independent nursing practice (Porter & Lee, 2021). In a similar vein, process management is a positive indicator of performance management indicated in this study. This purport the process mechanism must be upheld, reviewed, and revisited periodically to ensure that it achieves a great extent of performance and perceived quality care by nurses. Owing to the thematic analysis, eight themes emerged from the participants' narratives, including *quality focus, service focus, human resource focus, performance results, leadership, service system design, strategic planning, and information system*.

Sugandini and Wendry (2017) stated that customer satisfaction and loyalty would increase if an organization can handle complaints effectively on the first contact. Information from customers can be done by conducting regular satisfaction surveys or placing a suggestion box in the service room. The expectations and desires of customers can be read by the leaders compiled. This is done in addition to being able to identify the desires, expectations, and level of acceptance of patients/customers for health services in independent nursing practice, as well as to give a positive signal that in independent nursing practice has excellent attention and concern for patients/customers and creates a strong partnership relationship. Both with patients/customers to improve service processes.

According to the Malcolm Baldrige Assessment (National Institute of Standard and Technology (NIST), 2020), leadership is how top leaders can direct and sustain the organization and set its vision, principles, and performance expectations. Leadership is a component of quality control practices for improving operational performance, and that there is no question about organizational performance. Leadership is one of the main quality management practices, a critical factor that influences and plays an essential role in successfully implementing quality management in an organization (Gunawan et al., 2019), including private nursing practice.

The interviews with informants showed that setting the hospital's vision and mission can guide all employees in carrying out their duties. A clear, logical vision and mission with inspirational values are a source of fundamental strength in achieving goals organization (Lauring & Selmer, 2012). However, some informants have not yet



disseminated the vision and mission of practicing self-employment to all employees as an organization's goal.

As a form of commitment in implementing quality management, hospital leaders must also be able to create a sound (two-way) communication system with all employees where the flow of information is applied top-down and bottom-up (Kaluarachchi, 2010; Alolayyan et al., 2011). Furthermore, in connection with service process standards, especially amid a pandemic, COVID-19 must have compiled and developed a standard service document (SPO) (health protocol) as a guideline in carrying out actions/services for patients amid the COVID-19 pandemic, as well as establishing a service process flow so that it can be more efficient so as not to violate health protocols.

In a previous study conducted by Luring and Selmer (2012), customers' reluctance to direct their hopes and desires to officers could be caused by worry, the possibility that they might get a sour face from the officers. In solving organizational problems, finding the root of the problems is needed. Therefore, in this case, a management system in independent nursing practice is suggested to improve and monitor services. The results of patients' or customers' responses for improvement continue to be considered in quality for better service in the future.

#### Implication for Nursing Management and Practice

TQM is used by many disciplines to provide clients with reliable, accurate, accessible, timely, appropriate, and robust resources. Many healthcare providers have implemented TQM, which has helped increase cost management, quality, and efficacy of services. To satisfy the demands of different stakeholders and clients, nursing practice in Indonesia should incorporate TQM and other quality models into its structure. Among practicing individual nursing practitioners, there is an interconnected, linked, and collaborative network and linkage. TQM is needed to improve the quality and efficacy of services, adapt to changing environments, respond quickly to patient needs, and allow workers to be more active in work processes and decision-making. The findings of this study can also be used to improve the quality of health care and continuous improvement for CEOs of independent nursing practices. Furthermore, it is expected that the study results can be used by the government, especially the Ministry of Health, as the basis for accreditation to ensure the high quality of health care services.

#### Limitation of the Study and Future Recommendations

The limited sample size representing the CEOs of many independent nursing practices in Indonesia is considered a limitation of this study. In addition, the implementation of standards was not demonstrated in this study by document observations. Nevertheless, this study is significant even though it only describes the state of nursing service quality by evaluating the influence or relationship variables. Future research should pay more attention to this topic. More research is needed to extend our understanding of the constructs used in this study by exploring them in different

ways. Future research may look into the role of leadership, strategic planning, customer focus, measurement, analysis, and knowledge management, workforce focus, process management, and result performance in various service settings separately or in combination.

## Conclusion

In conclusion, the independent nursing practice in Indonesia performed well based on MBCfPE criteria in the study. To obtain a systematic view of service quality management and performance in independent nursing practice, this research work aligns internal and external service quality. TQM adoption by independent nursing practice resulted in safe, effective, efficient, timely, relevant, and comprehensive service delivery to various stakeholders. In a similar vein, TQM has been adopted primarily by many nursing institutions in their independent nursing practice, contributing to improved cost-containment, efficiency, and service effectiveness. Thus, it is recommended that independent nursing practices in Indonesia continue to integrate TQM and other quality models into their system to meet various stakeholders' demands. However, such integration requires conscientious and collaborative efforts among nursing professionals and practitioners. An informed, connected, and adaptive network and linkage among the independent nursing practice will be required.

#### Declaration of Conflicting Interest

The authors declare no conflict of interest.

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#### Authors' Contributions

DS and PL did the conception of this research. DS drafted the manuscript and collected data. PL and CPT contributed to the data analysis and manuscript development. Final approval of the version to be published was granted by all authors.

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#### Data Availability Statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

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