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The Impact of European Foundation for Quality Management (EFQM) and Malcolm Baldrige National Quality Award (MBNQA) on Institutional Excellence Outcomes in Healthcare

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Objectives:

This study is a comprehensive review and analysis of literature to identify the impact of EFQM and MBNQA on the outcomes of the healthcare organizations.

Review methods:

A comprehensive search was conducted on Medline, PubMed, CINHIL, and ScienceDirect. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram guided the inclusion of the studies published from 2015 to 2024.

Results:

Five studies were found fit to be included in this review, revealing the impacts of EFQM and MBNQA on the outcomes of the healthcare organizations. All of hospital quality assessment, organizational

performance, productivity, customer and staff satisfaction outcomes are significant to all the healthcare organizations and consumers can be improved when institutional excellence models implemented. Therefore, can lead to organization's overall success in terms of healthcare delivery and ensure sustainable values.

Conclusion:

The findings underscore the significance of implementing a model of institutional excellence help organizations to improve the outcomes, the general business performance, and efficiency of the country.

Key words: Institutional Excellence EFQM, MBNQA, Healthcare, Outcomes.

1. Introduction

Adapting to the changing human needs, healthcare systems and organizations are undergoing fundamental changes (Alanazi, 2021). These have been necessitated by rapid changes in science and technology, new incentive structures and technologies, moral attitudes, environmental conditions and the effects of rising costs that pose great challenges to health management (Alanazi, 2021). Consumers and payers demand high quality services at a reasonable and affordable cost (Dahlgaard et al., 2013). The goal of healthcare organizations, therefore, is to improve quality and build patient, professional and cost-paying trust with respect to quality, structure, process and outcomes (Dahlgaard et al., 2013). While quality means meeting the demands and expectations of consumers, excellence means exceptionality or exceeding the expectations of all stakeholders that include workers, consumers, society. Institutional excellence models or the instruments that are used to improve the institution's overall performance are significant to improve the efficiency of services provided (Dahlgaard et al., 2013: Barnawi, 2022: Assarlind & Gremyr, 2014).

Institutional excellence model depends on several factors that include commitment and positive changes in information dissemination that influence the success factors and decision-making (Black & Porter, 2007: Griffith, 2017). They also depend on the structure that includes the efficiency of the institution, leadership, and employees (Griffith, 2017). Additionally, human resource within the organization can be an important indicator of the work performance, and rewards that include financial benefits, remunerations, and compensation are also important in this (Dahlgaard et al., 2013: Assarlind & Gremyr, 2014). Similarly, having good learning systems that provide knowledge, training, and continuous performance development programs can play a significant role in achieving excellence (Hides et al., 2004), Also, the interaction between the leadership and employees can improve the work processes, adding to institutional value (Griffith, 2017).

Nowadays, several countries have developed national award programs to recognize organizations that have successfully implemented an excellence model and sustained performance development (Kamal, 2023). Based on the available literature, there is positive impact of the institutional excellence models on the organizations, providing them a foundation to develop, avoiding the useless activities and work, and valuable and informative performance benchmarking programs (Chowdhury et al., 2021). Also, the institutional excellence models can assist the organizations to provide a platform for long-term organizational success and increase the overall value of a business (Pattanaik, 2020). On the contrary,

failure to implement organizational excellence factors may lead to unclear work vision, lack of flexibility to change management and planning, and overload of work with low value. Similarly, lack of commitment and engagement of management, lack of training opportunities and education courses, and lack of consumer focus can be a result of the failure in implementing organizational excellence factors (Daryono, 2022: Pattanaik, 2020).

Institutional Excellence models gained popularity in the 1980s and 1990s with the launch of the European Foundation for Quality Management (EFQM) and Malcolm Baldrige National Quality Award (MBNQA) (Barnawi, 2022). In the healthcare sector, there is ample evidence that EFQM and MBNQA models have a strong impact on the healthcare outcomes that include healthcare systems, healthcare performance, health polices and strategies, healthcare services, partnerships and resources, processes and procedures, and healthcare workforce performance, and patient satisfaction (Alanazi, 2021: Barnawi, 2022: Griffith, 2017: Daryono, 2022: Pattanaik, 2020: Favaretti et al., 2015). However, studied that discuss the impact of the institutional excellence models, specifically the European Foundation for Quality Management (EFQM) and Malcolm Baldrige National Quality Award (MBNQA) on healthcare organizations outcomes is lacking (Pattanaik, 2020: Favaretti et al., 2015). The aim of this systematic review is to identify the impact of EFQM and MBNQA on the outcomes of the healthcare organizations.

1.1 The European Foundation for Quality Management (EFQM):

The EFQM Model is the most popular tool in Europe, used by more than 30000 organizations in (2021). This excellence model was founded in 1989, with goals to create a platform where organizations can exchange knowledge, information, and ideas to continuously develop their performance in the long term (Van Schoten et al., 2016). EFQM seeks to create a culture that supports managers, enhance employees' performance, and increase employees' training, education, and continuous performance development Nabitz et al., 2023). However, the main objectives of the EFQM are to improve performance, create sustainable value, and driving performance (Van Schoten et al., 2016: Nabitz et al., 2023). However, due to the technology interaction and the general development in healthcare services delivery, the model has changed its focus, goals and objectives to focus more on sustainability, organizational culture, vision, mission, and values to drive transformation and performance, and to create sustainable value (EFQM, 2010: Van Schoten et al., 2016: Nabitz et al., 2023).

The EFQM consists of two parts: Approach and Results. These criteria divide into 100 points each except customer-related results and the main operational results, where the value of the criterion is 150 points out of 1000 (EFQM, 2010). It is rather impossible to attain 1000 points, because no institution is able to comply with all requirements of the criteria (EFQM, 2010). In order to qualify for the EFQM business excellence model award the candidate has to collect 750–850 points (EFQM, 2010). Only the institutions able to collect such a score can receive the highest evaluation in Europe or in the world in quality matters (EFQM, 2010).

According to Pattanaik (2020), EFQM is a powerful instrument of diagnostics providing to the stakeholders the training opportunities aimed to localize the strengths of the company and the potential of improvement. Besides, this model provides to institutions the opportunity to see the difference between the best practices and actual performance (Nabitz et al., 2023). It gives a rational justification for assessment of performance and progress on way to the defined aims and tasks (Nabitz et al., 2023).

1.2 Malcolm Baldrige National Quality Award (MBNQA):

The MBNQA Model is the most popular excellence assessment tool in the United States of America (Kanji J.G., 2001). This excellence model was founded in 1987 and adopted by several healthcare organizations (Kanji J.G., 2001). The MBNQA Model continuously improved every two years after collecting the opinion of the users about the model and its deficiencies (Kanji J.G., 2001). The MBNQA Model aims to encourage quality awareness, define the criteria of quality excellence and distribute information about successful quality related activities and strategies (Kanji J.G., 2002: Daryono, 2022). The MBNQA Model focuses on integration of leadership, strategy, customers, workforce, operations, and results (Kanji J.G., 2002: Daryono, 2022).

The MBNQA Excellence Model consists of seven categories that ensure the strategic progress of the overall work (Kanji J.G., 2002: Daryono, 2022). These seven categories have a special distribution of the scores as followed: leadership (120 points), measurement, analysis, and knowledge management (90 points), results (45 points), and (85 points) each for strategy, workforce, customers, and operations (Kanji J.G., 2002: Daryono, 2022).

This instrument was established with the aim to encourage quality awareness, define the criteria for quality excellence and distribute the information about successful quality strategies and related benefits (Sampaio et al., 2012).

However, in the United States, it is a particularly popular system to maintain organizational self-assessment (Sampaio et al., 2012). The American National Institute of Standards and Technology (NIST) acknowledges that thousands of institutions use the criteria of this model in their self-assessment procedures (Sampaio et al., 2012).. However, MBNQA is just a totality of guidelines and not a rule to make institutions comply with every indication without research and interpretation of its contents (Kanji J.G., 2002: Daryono, 2022).

2. Methods

2.1 Design

This is a systematic review on the impact of the institutional excellence models; EFQM and/or MBNQA on healthcare organizations' outcomes that include total quality management, organizational performance, productivity, customer and staff satisfaction. The study has adopted a methodological approach that combined elements of the Joanna Briggs Institute (JBI) with the guidelines of the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR). The choice to integrate these specific approaches provided a good framework that allowed us to comprehensively address the complexity of the topic in question. The JBI guidelines provided a rigorous methodological framework for the search, selection, and quality assessment of included studies, while the PRISMA-ScR principles improved transparency and clarity in the presentation of results.

2.2 Eligibility Criteria

For this study, all primary and secondary studies were considered. To carry out the research, the search terms in the title and abstract considered were: "Total quality management," “Healthcare outcomes," “Healthcare organization performance," “Institutional excellence” EFQM," and "MBNQA". These were combined using Boolean operators. The following inclusion criteria were defined: studies in English; abstracts or full texts available; publication date from 2014 onwards; investigating the impact of the EFQM and MBNQA elements on quality assessment of hospitals, organizational performance, productivity, and customer and staff satisfaction, or exploring the relationship between the EFQM and MBNQA and these outcomes. The approach was inclusive in this study, incorporating all relevant forms of available literature. This included primary research studies that provide original data that synthesize existing evidence. The inclusion of all these sources of evidence was grounded in the search for a holistic understanding of the topic, allowing us to address the complexity and diversity of perspectives present in the available literature.

Additionally, the following exclusion criteria were defined: Paper published in languages other than English; published before the year 2013; study samples including other institutions or staffs than healthcare institutions and/or workforce; studies that exclusively involved other institutional excellence models than EFQM and MBNQA; studies investigating the impact of the EFQM and MBNQA on factors other than total quality management, organizational performance, productivity, and customer and staff satisfaction, outcomes.

It is important to note that, in order to ensure a comprehensive and inclusive approach, no studies were excluded during the selection process. All studies identified through the search strategy were considered and assessed for relevance to the objectives of this review.

2.3 Sources Information and Search Strategies

The review question was formulated based on the PCC strategy, which considered the following: institutional excellence, EFQM, MBNQA, organization’s performance, total quality management, and healthcare organization. The guiding question was: How is applying the elements of the institutional excellences; EFQM, MBNQA impact the healthcare organization outcomes? Regarding the search strategies, the keywords identified in Health Sciences Descriptors (DeCS) and Medical Subject Headings (Mesh) were analyzed.

In this research, the following descriptors were used: total quality management, quality assessment, healthcare outcomes, healthcare institution performance, institutional excellence, EFQM, and MBNQA. The Boolean operators used were AND, and OR.

The keywords were: (Institutional excellence OR EFQM OR MBNQA *) AND (Total quality management OR healthcare organization outcomes) AND (Healthcare institution). Similar keywords were used for all the data in the databases.

The research had stages. The first was developed in CINAHL and MEDLINE, with an analysis of studies containing the identified keywords in the title or abstract. This first phase of the review plays a critical role in the initial identification of relevant studies and in defining parameters for the subsequent

phases of the review.

After this, the same keywords and search terms were used in the remaining databases: Scopus; Cochrane Database of Systematic Reviews; PubMed; Scientific Electronic Library Online (SciELO); and the Open Access Scientific Repositories of Portugal (RCAAP).

In the third stage, we tried to find new studies, which were identified by searching the bibliographic references of all included articles, following a snowball manual search strategy used in each database.

The articles that raised a doubt were extracted and read in full after abstract analysis, and thereafter, if they answered the question initially proposed, they were selected for this review.

This review adhered to the Preferred Reporting Items for Systematic reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) guidelines. The PRISMA-ScR checklist guided the search strategy, establishing inclusion and exclusion criteria and influencing the assessment of the methodological quality of the included studies. The methodology adopted was based on the PRISMA-ScR recommendations to ensure consistency, transparency, and rigor in the review process.

According to the JBI scoping review methodology, data were extracted from the articles included in the review using a results extraction table, according to the review objective and question.

Following the search, all identified citations were collected and uploaded into Mendeley (V1.19.8) and duplicates were removed.

2.4 Selection Process

A total of 157 articles were identified in the selected databases. Of these, 12 articles were removed for being duplicates, leaving a total of 145 articles.

After reading the titles of the 145 articles, 126 articles were excluded because they did not contain the search terms, leaving a total of 19 articles. Next, the abstracts of the 19 articles were read; 8 articles were excluded due to their abstracts, leaving a total of 11 articles.

Once the full-text articles were obtained, they were read and examined. Five articles met the inclusion criteria, and six articles were excluded after a full reading. No studies were added after analyzing the bibliographic references of the selected studies. *(Figure 1)*

2.5 Data Collection Process

To organize and synthesize the data, we employed a table to extract significant information from each included study. This approach provided a clear view of the importance of implementing institutional excellence elements and key results, facilitating the analysis and interpretation of the findings. The data extraction table was organized according to the following layout: author(s); year of publication; language; results and conclusions.

2.6 Results

The articles included in this review are mostly from Europe and North America, corresponding to 80% of the studies (Van Schoten et al., 2016: Nabitz et al., 2023: Daryono, 2022: Favaretti et al., 2015), with 20% of studies from Asia (Pattanaik, 2020). By analyzing the results of the five articles, two thematic categories emerged: evaluation of EFQM and MBNQA elements implication on the healthcare organizations outcomes. Of these five articles, four aimed to discuss the impact of EFQM model, and only one concerned the impact of MBNQA on the healthcare organizational outcomes (Van Schoten et al., 2016: Nabitz et al., 2023: Daryono, 2022: Favaretti et al., 2015). One study was conducted in India, the only included study in this review to be conducted in a country outside of Europe and the United States of America (Pattanaik, 2020). (*Table 1*).

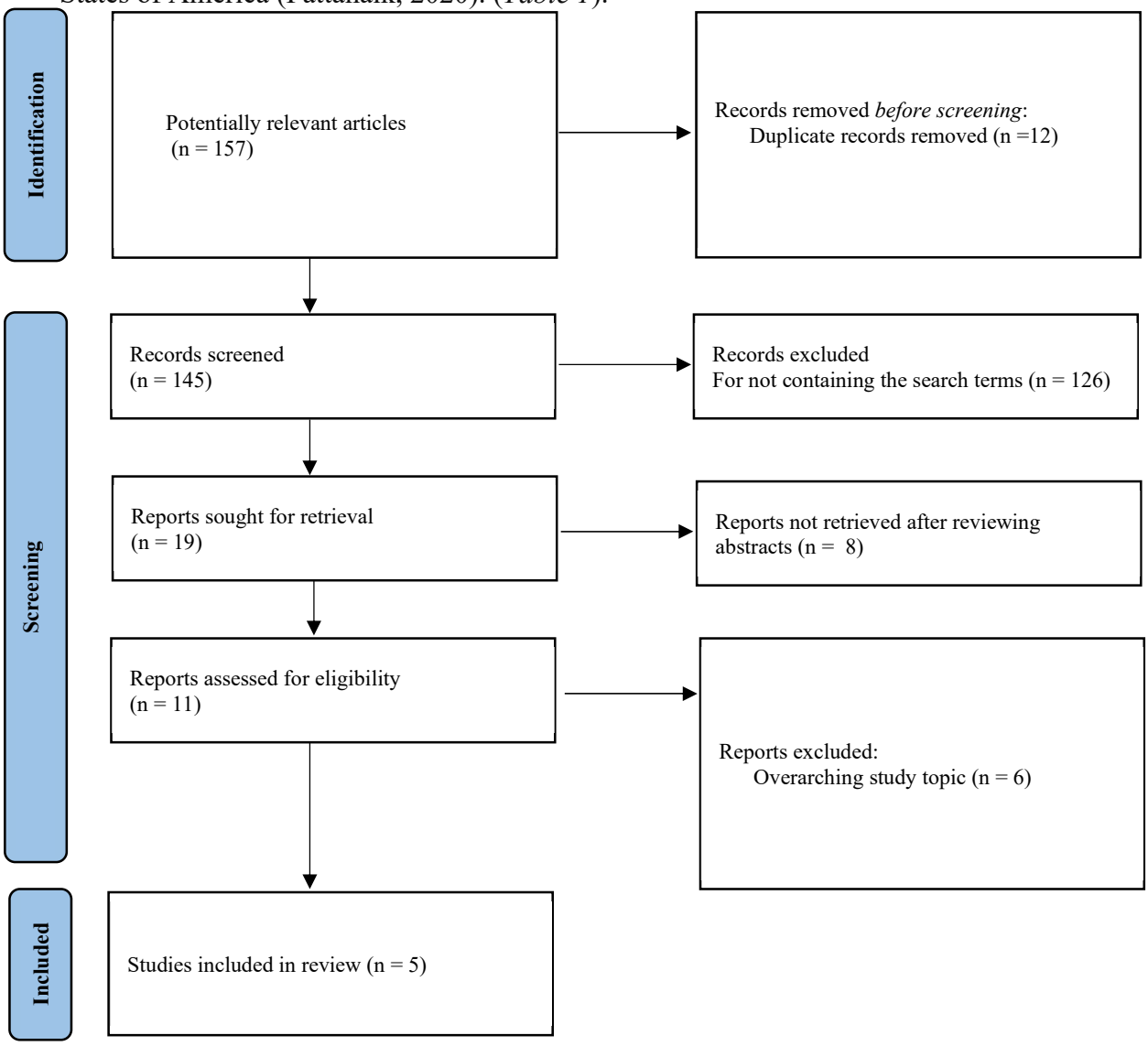

Figure 1. PRISMA Flow Diagram of the Systematic Review

Table 1. Main characteristics of the studies

Author(s) Location	Aim(s) of study	Sample	Data Collection Instrument	Key findings	Comments
Van Schoten et al. (2016)	To conduct a longitudinal investigation of whether the EFQM Model can serve as a framework for TQM in healthcare.	Data on a national representative survey about quality management (QM) in the hospital population in the Netherlands.	Survey had five measurement points between 1995 and 2011.	Applying the EFQM Model in hospitals is related to improvement in organizational performance over time, a feedback loop in which hospitals use their results to further improve their organizational processes is established, and improvement is stronger when all the model's elements are considered	

Author(s) Location	Aim(s) of study	Sample	Data Collection Instrument	Key findings	Comments
				simultaneously.	
Nabitz et al. (2023)	To cope with the policy context, a majority of mental health care institutes applied a merger strategy and hence large mental health care organizations were created. This study assesses the impact of a merger and the related quality management approach on the quality of care of three large Dutch	A case study with a pre–post design was applied, with the EFQM baseline (pre) and follow-up (post) assessments using the standardized EFQM protocol with a 0%–100% scoring system. The baseline status of 2007–2008 was scored and validated by seven independent certified assessors	An EFQM post-assessment of the status of 2012–2013 was carried out by five independent certified assessors applying the strict EFQM assessment protocol. The statistics of pre–post differences were evaluated. The study can be seen as a before–after assessment of a	The comparison of the nine EFQM criteria before and after the merger on the bases of the scores of the assessors shows an overall improvement from 358 to 425 points on the EFQM scale 0–1000. There is one slight deterioration concerning criterion 8: Society Results, five criteria show positive changes. The top three criteria with the	

Author(s) Location	Aim(s) of study	Sample	Data Collection Instrument	Key findings	Comments
	mental health care institutes in Amsterdam. The nine criteria of the Model of the European Foundation for Quality Management (EFQM Model) with 32 criteria parts for total quality management were used.	. During a period of 5 years, the merge was conducted, enhancing the quality management and effectuating the findings of the advice of the feedback report.	naturalistic experiment.	highest improvement are 1: Leadership (15% improvement), 5: Processes, Products, and Services (12%), 6: Customer Results (15%). The overall statement of the audit team of 2013 is 'The merged organization strives for effectiveness, which leads to better results in most of the areas.' Learning from the results is one recommendation of the assessors	

Author(s) Location	Aim(s) of study	Sample	Data Collection Instrument	Key findings	Comments
				for the future.	
Daryono (2022)	To determine whether the application of the Malcolm Baldrige National Quality Award in health services can lead to efficiency in health services.	This study explores the longitudinal outcome data of the Malcolm Baldrige National Quality Award in healthcare in terms of patient outcomes, as well as financial measures and healthcare efficiency and profitability.	The methodology is distinguished by incorporating multiple approaches and designs that rigorously evaluate interventions with one or a small number of cases.	The Malcolm Baldrige National Quality Award (MBNQA) in healthcare results in an increase in positive clinical outcomes, while financial measures and healthcare efficiency all show very positive operative outcomes.	
Favaretti et al. (2015)	To account for a ten-year experience with the European Foundati	Since 2000, the EFQM Excellence Model provided		Rising assessment ratings and improving results characterized the journey.	

Author(s) Location	Aim(s) of study	Sample	Data Collection Instrument	Key findings	Comments
	on for Quality Management (EFQM) Excellence Model implemented in the Trento healthcare trust.	an overarching framework to streamline business process governance, to support and improve its enablers and results. From 2000 to 2009, staff performed four internal (self) and four external EFQM-based assessments that provided guidance for an integrated management system. Over the		The average self-assessment score (on a 1,000 points scale) was 290 in 2001, which increased to 610 in 2008. Since 2006, the Trust has been Recognized for Excellence (4 stars). The organization improved significantly on customer satisfaction, people results and key service delivery and outcomes.	

Author(s) Location	Aim(s) of study	Sample	Data Collection Instrument	Key findings	Comments
		years, key controls and assurances improved service quality through business planning, learning and practice cycles.			
Pattanaik (2020)	To investigate the quality assessment of hospitals in Odisha using the European Foundation for Quality Management (EFQM) model	Including doctors, hospital managers and Senior Executives in hospitals of Odisha. Random sampling was used where 87 respondents participated in the study.	This study used a quantitative methodology to collect the data through a questionnaire from the healthcare professionals.	The results confirmed the significant contribution of the EFQM determinants in relation to each other. The results emphasize the efficacy of the EFQM model and it had both practical as well as academic contribution in the quality	

Author(s) Location	Aim(s) of study	Sample	Data Collection Instrument	Key findings	Comments
				assessment in the hospitals and finally, it concluded that the EFQM model has played a vital role in influencing the quality assessment of hospitals.	

. Discussion:

All of hospital quality assessment, organizational performance, productivity, customer and staff satisfaction outcomes are significant to all the healthcare organizations and consumers. A high maturity of organizational functioning in the healthcare organizations helps ensure institutional excellence in order to improve their competitive advantage. Nowadays, various institutional excellence models are widely recognized. These institutional excellence models can evaluate the factors that influence all of the leadership, human resource management, customer satisfaction, information, and analysis on the quality results competitive advantage (Dahlgaard et al., 2013: Assarlind & Gremyr, 2014: Alanazi, 2021: Barnawi, 2022: Griffith, 2017: Daryono, 2022: Pattanaik, 2020: Favaretti et al., 2015). This can lead to organization's overall success in terms of healthcare delivery and ensure sustainable values. The United States of America and several developed European countries have focused on the implementation of the institutional excellence models to achieve excellence in providing high-quality healthcare services and ensure their sustainability.

Applying quality standards on healthcare institutions is helpful to achieve excellence in healthcare service delivery. On the contrary, institutional excellence models can be applied as the tools that lead to organizational excellence in performance and healthcare service delivery, as well as ensure sustainability. In order to provide excellent services and to ensure sustainability, developed countries in Europe and North America have applied institutional excellence elements to reach efficiency in healthcare services in the countries.

Unlike quality improvement standards that can be applied internally to organizations, institutional excellence models are the external tools that can be applied on the overall institution performance. Several studies have found a strong relationship between performance development and institutional excellence models such as the European Foundation for Quality Management (EFQM) and Malcolm Baldrige National Quality Award (MBNQA). Van Schoten et al (2016) found that applying the EFQM Model in hospitals resulted in a long-term development in the organizational performance and process, and that EFQM can be used as a total quality management framework in healthcare. Therefore, the EFQM Model of excellence can improve the organization's performance, enhance the outcomes, and ensure sustainability (Van Schoten et al., 2016).

Van Schoten et al (2016) found that applying the EFQM Model in hospitals resulted in general development in organizational performance and process in the a long-term, and that EFQM can be used as a total quality management framework in healthcare. It should be noted that the study was conducted in Netherlands where several healthcare organizations used EFQM as a model of award, unlike MBNQA that is used widely to award the American institutions. However, the findings of this study showed that the implementation of EFQM model elements improved the organizational performance, and this improvement can be general to the organization when all the elements of the EFQM model are considered simultaneously.

In three Dutch mental healthcare institutions, a pre-post design case study was conducted to assess the impact of the European Foundation for Quality Management (EFQM) on the organizations' performance (Nabitz et al., 2023). The findings showed a notable improvement in terms of leadership, society and customer results, and process, products, and services up to 15% when EFQM elements were implemented to the mental healthcare institutions (Nabitz et al., 2023). The authors called for a general implementation of EFQM elements, as they are likely to lead to better results based on their findings (Nabitz et al., 2023).

A Canadian study was conducted to account for a ten-year experience with the European Foundation for Quality Management (EFQM) Excellence Model implemented in the Trento health care service (Favaretti et al., 2015). The results of this study found an observed rising assessment rating and improving results characterized the journey (Favaretti et al., 2015). The average self-assessment score (on a 1,000 points scale) was 290 in 2001, which increased to 610 in 2008. Since 2006, the trust has been Recognized for Excellence (four stars) (Favaretti et al., 2015). The organization improved significantly on the counts of consumers' satisfaction, total human resources results, healthcare service delivery, and the overall organizational outcomes (Favaretti et al., 2015).

Another study confirmed the significant positivity of contributing the EFQM elements in the healthcare organizations (Pattanaik, 2020). The results of this study emphasize the positive effects of the EFQM model and it had both practical as well as academic contribution in the quality assessment in the healthcare organizations (Pattanaik,2020). The results also showed that the implementation of the EFQM model elements played a vital role in influencing the quality assessment of hospitals (Pattanaik,2020). It should be noted that this cross-sectional study included 87 participants: administrators; managers, senior executives, clinicians, and physicians (Pattanaik,2020). This can provide a clear overview of the importance of implementing institutional excellence models in healthcare sector, as they can positively impact the work of the medical and administrative staff (Pattanaik,2020).

In terms of Malcolm Baldrige National Quality Award, another study was conducted (MBNQA) in healthcare organization (Favaretti et al., 2015). The results of this study found that a huge forward leap into excellence occurred in the organizational outcomes (Favaretti et al., 2015). This include an improvement in increasing the positive clinical outcomes (Favaretti et al., 2015). Additionally, both the financial measures and healthcare efficiency showed very positive operative outcomes in the organization (Favaretti et al., 2015). Furthermore, the authors called for the implementation of the MBNQA model elements on the overall healthcare organization to achieve work efficiency, and ensure success sustainability.

It should be noted that several countries around the world have launched institutional excellence models, such as the African Excellence Model (AEM) (2020), Australian Business Excellence Framework (ABEF) (2011), and Canada's Excellence, Innovation and Wellness Standard (CEIWS) (2021). These models were launched after the success of EFQM and MBNQA on the overall institutional performance and excellence in creating a sustainable value. This can be seen as an evidence of the importance of institutional excellence elements implementation in services sectors.

4. Limitations

Several limitations are noted in the present review. Firstly, despite an exhaustive search across various databases, other than Europe and United States, no other studies were identified, except one in India, potentially limiting the generalizability of the findings to the countries institutional excellence context. Secondly, only one study included in the review specifically addressed the implementation of MBNQA Model, limiting the scope of insights into the potential impact of extraordinary event. Lastly, the limited resource in the literature on the impact of EFQM and MBNQA Models may restrict the depth of understanding regarding the nuanced aspects of institutional excellence within their impact on healthcare organizational outcomes. These limitations underscore the need for future research endeavors that encompass a more diverse range of geographical locations, explore the effects of extraordinary events, and involve a more globally representative authorship to enhance the comprehensiveness and applicability of findings in addressing the impact of institutional excellence on healthcare organizational outcomes.

5. Conclusion

Institutional excellence models are the instruments which help the organizations improve the outcomes, the general business performance, and efficiency of the country. In terms of the implementation of the criteria of institutional excellence model, most organizations show common features. Therefore, the implementation of institutional excellence models has become a need to achieve success and ensure sustainable value. The wide implementation of each of MBNQA and EFQM models in the United States and other developed European countries can show that the implementation of an institutional excellence model can accelerate and ease the journey to excellence for every healthcare organization. The other countries around the world can follow the examples of the United States and the European countries in order to increase the efficiency of their countries' work/ service sectors. The institutional excellence models are subject to continuous improvement by their developers to ensure it remains a trustworthy tool for quality management.

6. Recommendations

Institutional excellence models provide a clear organizational progress strategy, imparting training to the employees to be empowered in the implementation of organizational excellence, as well as clearly set out organizational roles and responsibilities. Also, future investigation is needed to support sustainability at both strategic and operational levels. It is recommended that healthcare organizations increase awareness about the institutional excellence models with the working population as well as healthcare providers and other staff, thereby also improving employees' decision-making. Healthcare organizations' leaders may also communicate the goals to staff to achieve clarity and indicate the shared direction. Finally, further research is mandated to examine the impact of institutional excellence models and their implementation on healthcare outcomes.

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